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Department of Facilities and Transportation Services
8115 Gatehouse Road, Suite 3300
Falls Church, Virginia 22042-1203

SOLE SOURCE JUSTIFICATION
DETERMINATION AND FINDINGS

Description: Cooling Tower Filtration System at Gatehouse Administrative Center

Date: October 21, 2021

Department: Office of Facilities Management Infrastructure & Environmental Engineering Section (IEE)

Vendor Number: 1000017601

Dollar Value: $69,420

Work Order #: not yet assigned

STATEMENT OF REQUIREMENT:

The cooling tower manufactured by Baltimore AirCoil Company (BAC) at Gatehouse Administrative Center was installed in 2002. The existing water filtration system was undersized and got clogged often. The new filtration system is sized and recommended by CT/HX which is the factory authorized service company for BAC cooling tower.

FINDINGS:

CT/HX, LLC a service division of The Morin Company is the factory authorized Service Company in this territory for the BAC cooling tower and they are equipped to perform the work (see attached letter).

DETERMINATION:

It is recommended that a contract be issued to CT/HX, LLC for the replacement of the Gatehouse Administrative Center cooling tower filtration system in the amount of $69,420 (Option #2 on proposal).

APPROVED:

Program Manager: _____ **Date:** Oct. 22, 2021
David M. Bennett

Director: _____ **Date:** 10/22/21
Justin R. Moss

Assistant Superintendent: _____ **Date:** 10-25-21
Jeffrey K. Platenberg

BALTIMORE AIRCOIL COMPANY

7600 Dorsey Run Road Jessup, MD 20794 › tel 410.799.6200 › fax 410.799.6416 › www.BaltimoreAircoil.com

October 22, 2021

Ms. Lucy Dong
Mechanical Engineer, P.E.
Fairfax County Public Schools
Infrastructure and Environmental Engineering
5025 Sideburn Road
Fairfax, VA 22032

Re: Gatehouse Administrative Center BAC Cooling Towers
(2) Model 33458R, S/N U014206401/02

Dear Ms. Dong,

Please regard this letter as confirmation that The Morin Company LLC is the exclusive Baltimore Aircoil Company (BAC) HVAC and light industrial manufacturer's representative for the Maryland sales territory. CTHX LLC is the service division of The Morin Company and as such qualified to perform inspection and service repair for BAC's complete line of cooling tower products.

The Morin Company and CTHX have inspected the existing BAC cooling tower and have proposed repairs in accordance with BAC recommendations.

Baltimore Aircoil Company appreciates your business and continued support. Please advise us if you require additional assistance with this matter.

Sincerely,

BALTIMORE AIRCOIL COMPANY

Tony Leoncini

Tony Leoncini
Regional Sales Manager

Cc: Mr. Bob Leyden, CTHX LLC
File

CT/HX, LLC
COOLING TOWERS AND HEAT EXCHANGERS
9305 Gerwig Lane Suite v-y, Columbia, MD 21046
Washington: (301) 953-0252 Baltimore: (410) 792-2178 Facsimile: (410) 290-5165

Project Site:
FCPS Admin. Bldg.
8115 Gatehouse Road
Falls Church, VA. 22042

To: FCPS
Attn: Lucy Dong | Email: lqdong@fcps.org

Reference: Filtration System for BAC Cooling Towers | Serial: U014206401 | Model: 33458 (x2) / Condenser Water System.

OPTION #1 – LAKOS TPX-0400 TOWER CLEAN PACKAGED SOLIDS SEPARATOR INSTALLATION W/ SUMP BASIN SWEEPER PIPING:

- Check in with onsite personnel upon arrival to coordinate access for material, equipment, piping supplies up through the building and in to the penthouse mechanical room.
- Demo the existing LAKOS side stream system and cap off the existing piping by installing blind flanges on the (2) existing isolation valves.
- Furnish and install one (1) new LAKOS® TPX-0400-SRV packaged separator in the designated area inside the penthouse mechanical room. The LAKOS unit will be sized for 400 GPM, complete with solids separator vessel, one (1) 15HP 460 volt pump, 6" Inlet / 4" Outlet connections with associated isolation valves, Solids Recovery Vessel (SRV), Inlet/Outlet Pressure Gauges, and a NEMA 4X Control Panel. Skidded package will be installed and secured to the penthouse floor in the area where previous LAKOS unit was installed.
    - NOTE: We will provide independent electrical sub-contractor to install a 480 volt / 20 amp / 3 phase circuit with disconnect from the existing mechanical room 480 volt panel labeled "PH" to the new LAKOS filter location.
    - Note: We will provide an independent sub-contractor to provide "Ground Penetrating Radar" for the areas in penthouse wall where piping must run through from interior to the exterior as well as the penthouse floor area where the filtration skid will be secured to the concrete floor with ½ inch low profile drop in anchors.
- Furnish and install (1) new valve package for the inlet and outlet of the new LAKOS® filtration system.
- Furnish and install piping, cell isolation valves, flanges, couplings and related fittings needed to assemble the manifold discharge piping and manifold suction piping between the existing cooling tower units and the new LAKOS® filtration system package.
- Furnish and install piping required from the solids recovery vessel's purge valve to the mechanical room floor drain.
- Furnish and install basin sweeper piping in each of the 2 cooling towers, each cell will have 20 Hydro-boosters installed in a "Sump Sweeper Piping Kit" constructed of schedule 40 PVC.
    - Note: The isolation and draining of the cooling tower is required for the installation of the sweeper piping kit.
- Open valves to flood the separator, piping, and bleed all air possible from the newly installed system to provide a leak test.

SOW#1 continued on next page

CT/HX, LLC
COOLING TOWERS AND HEAT EXCHANGERS
9305 Gerwig Lane Suite v-y, Columbia, MD 21046
Washington: (301) 953-0252 Baltimore: (410) 792-2178 Facsimile: (410) 290-5165

- Startup LAKOS equipment as per manufacture's specifications. Monitor operation and pressures, balance, and check system for any possible leaks.
- Upon completion of installation of the LAKOS® filtration system, the exterior piping will be heat traced and insulated for use in the winter months.
- Provide owners training to the FCPS facilities. (Can be scheduled to meet FCPS availability)
- Clean up job site of all work related debris and dispose of offsite.

Option #1 Price: $89,699.00 Accepted by:_____(Initials)

OPTION #2 - INSTALLATION OF LAKOS SPX-0280 SIDE STREAM PACKAGED SOLIDS SEPARATOR:

- Check in with onsite personnel upon arrival to coordinate access for material, equipment, piping supplies through the building to penthouse mechanical room.
- Demo the existing LAKOS side stream system and cap off the existing piping by installing blind flanges on the (2) existing isolation valves.
- Furnish and install one (1) new LAKOS® SPX-0280-SRV Side Stream skidded solid separator sized for 280 GPM, complete with solids separator vessel Model HTX-0200, one (1) 5hp, 460 volt pump, 4" Inlet / 4" Outlet connections with associated isolation valves, Solids Recovery Vessel (SRV), Inlet/Outlet Pressure Gauges, and a NEMA 4X Control Panel. Skidded package will be installed and secured to the penthouse floor in the area where previous LAKOS unit was installed.
    - NOTE: We will provide independent electrical sub-contractor to install a 480 volt / 20 amp / 3 phase circuit with disconnect from the existing mechanical room 480 volt panel labeled "PH" to the new LAKOS filter location.
    - Note: We will provide an independent sub-contractor to install (2) 4 ich wet taps in the existing system condenser water piping.
    - Note: We will provide an independent sub-contractor to provide "Ground Penetrating Radar" for the areas in penthouse wall where piping must run through from interior to the exterior as well as the penthouse floor area where the filtration skid will be secured to the concrete floor with ½ inch low profile drop in anchors.
- Furnish and install all necessary piping, condenser piping tap connections, isolation valves, and related fittings to connect the discharge and suction connections of the new LAKOS filtration system into the chilled water condenser piping from the system pumps. Discharge lines from the LAKOS unit will be connected back into the system.
- Once all piping connections have been made, open isolation valves to flood the separator and associated piping and manually bleed all possible air from all newly installed components and piping.
- Startup LAKOS equipment as per manufacture's specifications. Monitor operation and pressures, balance, and check system for any possible leaks.
- Provide owners training to the FCPS facilities. (Can be scheduled to meet FCPS availability)
- Clean up job site of all work related debris and dispose of offsite.

Option #2 PRICE: $69,420.00 **Acceptance Initial: _____**

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SPECIAL NOTES:

1. *CT/HX expects that steel tariffs recently imposed by the US Government will affect the cost and availability of parts and equipment in the coming months. The above quoted price is valid for **30 Days Only**. After 30 days CT/HX will need to confirm price and availability prior to final agreement/acceptance.*
2. *Above price does not include labor at Overtime/Weekend rates.*
3. *Above price does not include Certified Payroll or Davis-Bacon Wage Rates.*
4. *Above price does not include any financial Performance or Insurance Bonds or Requirements.*
5. *The cooling Tower will need to be isolated and drained by others prior to proposed work being performed.*
6. *Above price does not include OSHA approved scaffolding erector, if needed.*
7. *Above price does not include time needed for Site Specific Safety Orientation/Certification, or D&A testing if needed.*
8. *Above scopes of work will take approximately (5-10) Business Days to complete this project.*
9. *Allow 7-8 weeks lead time for delivery of the LAKOS filtration system from the date of the fully executed service contract.*

The proposal price includes the estimated labor, parts, materials, travel, and expenses specifically noted and required to perform these services; it does not include any additional repairs or services, which may become apparent during the course of the original work. Any additional repairs or required/requested work would be extra and would require a NEW job number. The proposal pricing presupposes that work will be performed during normal working hours.

Please acknowledge acceptance by signing and dating area below and returning the complete proposal to *CTHX LLC.*

Thank you for your interest in our services. Please do not hesitate to call if there are any questions.

Sincerely,

Frank Collins

Cell: 443-813-8023
Office: 301-953-7770
Email: fcollins@cthx.com

*Please see following page for Terms and Conditions

CT HX, LLC
COOLING TOWERS AND HEAT EXCHANGERS
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Terms and Conditions

CTHX LLC shall not be liable for delays beyond our control nor for special, indirect or consequential damages of any kind under our contract.

Workmen's Compensation Insurance as well as General and Automobile Liability Insurance cover CTHX LLC personnel and vehicles.

Unless otherwise stated, prices are firm for thirty (30) days from the date of this proposal and are based on work being performed during normal working hours of 8:00AM to 4:00PM, Monday through Friday exclusive of holidays. Labor performed outside regular hours will be charged extra at applicable overtime or holiday rates.

The contract balance is payable net 30 days following completion of the work. The account is subject to a finance charge for late payment computed at a monthly rate of 1 ½% of the total past due balance.

All labor and material furnished by CTHX LLC is warranted to be free from defects in material and workmanship for a period of one year. Warranty period begins at date of installation.

A 4% fee will be charged for each credit card transaction.

Acceptance of Proposal By:

Printed:_____ Signature: _____ Title:_____

Date:_____ Purchase Order #_____ Amount:_____

Credit Card Information: ☐ American Express ☐ Discover ☐ Master Card ☐ Visa

Credit Card Number: _____ Expiration Date: _____

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REVISION HISTORY

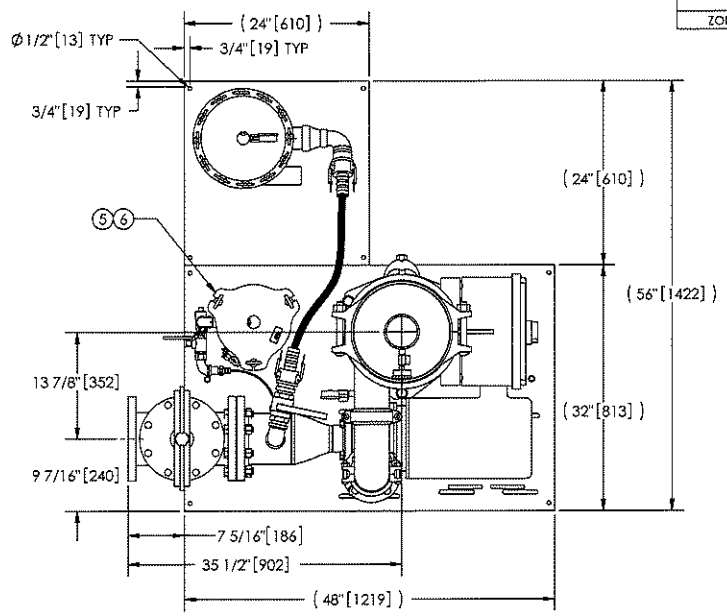
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:

1. INLET IS 6" PIPE (125# ANSI FLANGED).
2. OUTLET IS 4" PIPE (GROOVED).
3. PURGE OUTLET IS 1-1/2" PIPE.
4. MAXIMUM PRESSURE: 150 psi (10.3 bar).
5. MAXIMUM TEMPERATURE: 100°F (37.8°C).
6. SPECIFIED FLOWRATE OF400 gpm (91 m³/hr).
7. FINISH: AS ASSEMBLED.
8. POWER REQUIREMENT: 460V, 3PH, 60Hz.
9. NEMA 4X MOTOR STARTER ENCLOSURE WITH SAFETY DISCONNECT AND H.O.A. SWITCH.
10. APPROXIMATE DRY WEIGHT: 1285 lbs (583 kg).
11. INLET/OUTLET VALVE KIT, MODEL TCV-0400-PLUS RECOMMENDED.
12. MINIMUM PIPE FROM TOWER BASIN TO TP SYSTEM IS 6" PIPE.
13. FLOODED SUCTION REQUIRED.
14. MAXIMUM BASIN SIZE 350 sq ft.

COMPONENT LIST:

① ELECTRICAL CONTROL BOX 460V 60Hz W/120V TRANSFORMER.
② SEPARATOR: HTX-0285-TC.
③ PUMP: 15 HP CENTRIFUGAL, 3500 rpm, 460V, 60Hz.
④ INLET/OUTLET PRESSURE GAUGES: 0-100 psi, GLYCERIN-FILLED.
⑤ PURGE EQUIPMENT: SRV-816.
⑥ DIFFERENTIAL PRESSURE INDICATOR: (AVAILABLE WITH DRY CONTACT-MODEL DHE-15-S. ORDER SEPARATELY).
⑦ HOSE ATTACHED IN FIELD WITH QUICK DISCONNECT COUPLINGS.
⑧ FILTER VESSEL, 2" HRF-930-MP-2-BL, 304SS
⑨ BASKET STRAINER.



TOP VIEW

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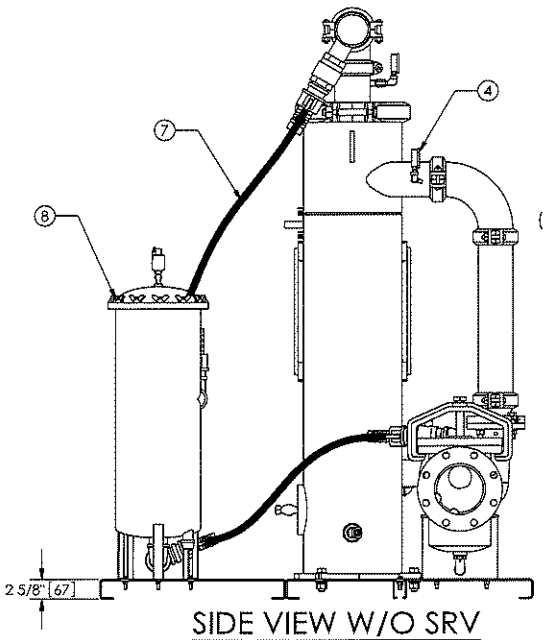
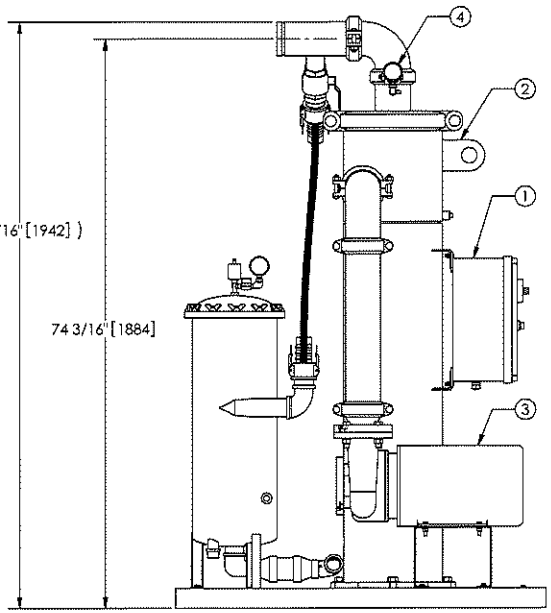
SUBMITTAL DRAWING

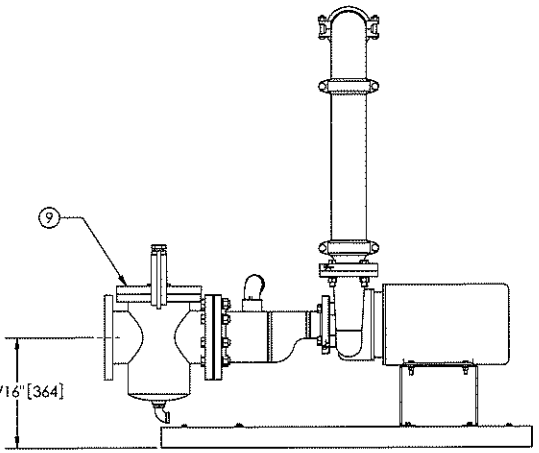
This drawing is submitted for spatial consideration only. Do not pre-plumb to these dimensions.



SIDE VIEW W/O SRV



FRONT VIEW W/O STRAINER/SRV



FRONT VIEW PUMP/STRAINER/SPOOL

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN: INCHES [mm] TOLERANCES ARE: FRACTIONS ± 1/32 DECIMALS .XX ± .01 .XXX ± .005 .XXXX ± .0005 ANGLES ± 1/4°	ENGINEERED FOR: STANDARD		CLAUDE LAVAL CORP. FRESNO, CALIFORNIA 93727 WWW.LAKOS.COM
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DO NOT SCALE DRAWING	DRAWN HSK	2/15/05	TITLE: TPX-0400-SRV, TCX SYSTEM HRF-930 VESSEL, SWEEPER HTX-0285, 460V 60HZ PLUS
MATERIAL: PER LAKOS SPEC	ENGR HK	12/15/05	
FINISH: AS ASSEMBLED	MFG -	-	SIZE C · MODEL NO. · DWG NO. 123376 · REV 01
	WORK ORDER	QTY.	SCALE 1:12 · EST. WT. 1285 lb · SHEET 1 OF 1

DWG NO. 123376 | SH 1 | REV 01

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REVISION HISTORY

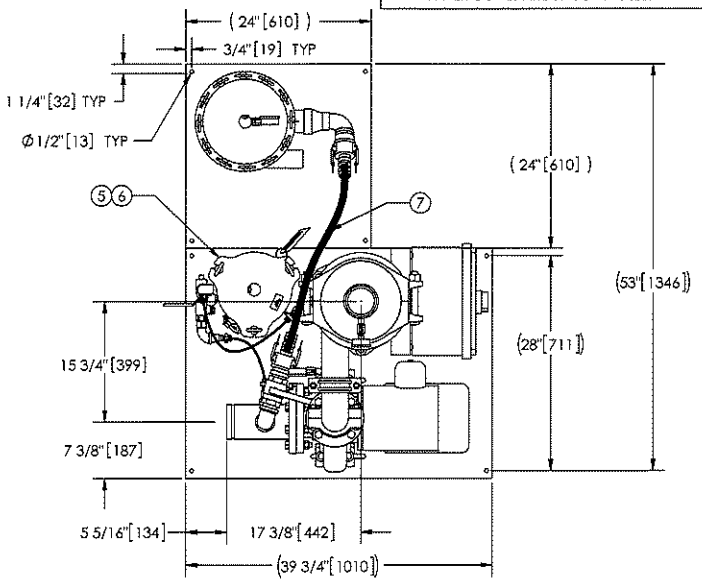
ZONE	REV	DESCRIPTION	DATE	APPROVED

NOTES:

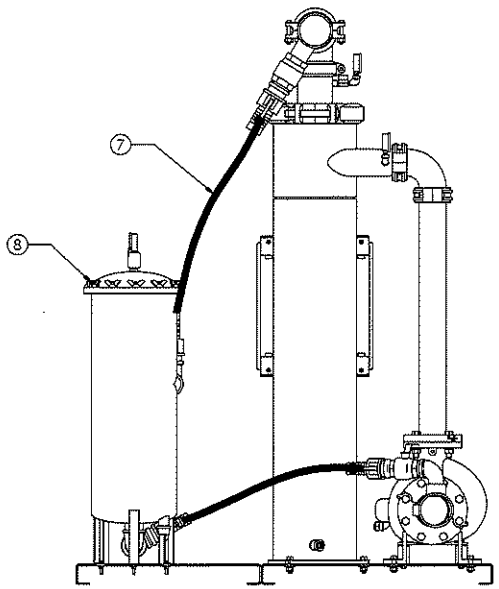
1. INLET IS 4" PIPE (GROOVED).
2. OUTLET IS 4" PIPE (GROOVED).
3. PURGE OUTLET IS 3/4" PIPE.
4. MAXIMUM PRESSURE: 150 psi (10.3 bar).
5. MAXIMUM TEMPERATURE: 100°F (37.8°C).
6. SPECIFIED FLOWRATE OF 280 gpm (64 m³/hr).
7. FINISH: AS ASSEMBLED.
8. POWER REQUIREMENT: 460V, 3PH, 60Hz.
9. NEMA 4X MOTOR STARTER ENCLOSURE WITH SAFETY DISCONNECT AND H.O.A. SWITCH.
10. APPROXIMATE DRY WEIGHT: 1199 lbs (543 kg).
11. INLET/OUTLET VALVE KIT, MODEL TCV-0280-PLUS RECOMMENDED.
12. MINIMUM PIPE TO SP SYSTEM IS 6" PIPE.
13. FLOODED SUCTION REQUIRED.

COMPONENT LIST:

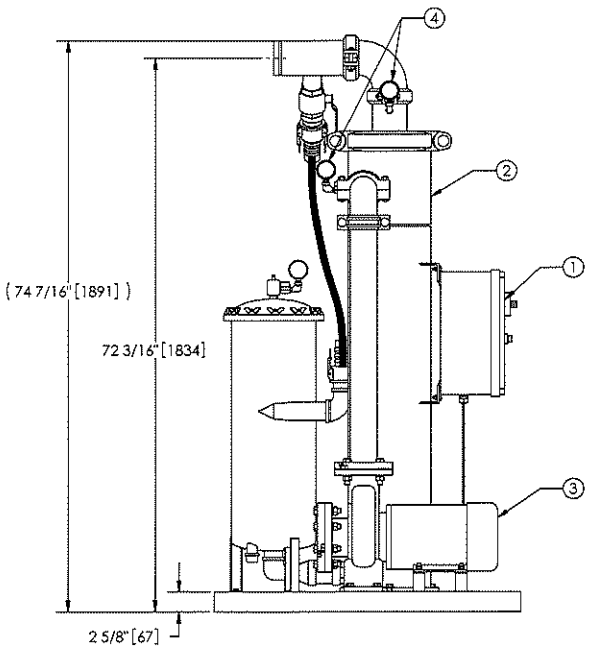
① ELECTRICAL CONTROL BOX 460V 60Hz W/120V TRANSFORMER.
② SEPARATOR: HTX-0200-TC.
③ PUMP: 5 HP CENTRIFUGAL, 1750 rpm, 460V, 60Hz.
④ INLET/OUTLET PRESSURE GAUGES: 0-100 psi, GLYCERIN-FILLED.
⑤ PURGE EQUIPMENT: SRV-816.
⑥ DIFFERENTIAL PRESSURE INDICATOR: (AVAILABLE WITH DRY DRY CONTACT- MODEL DHE-15-S. ORDER SEPARATELY).
⑦ HOSE ATTACHED IN FIELD WITH QUICK DISCONNECT COUPLINGS.
⑧ FILTER VESSEL, 2" HRF-930-MP-2-BL, 304SS.



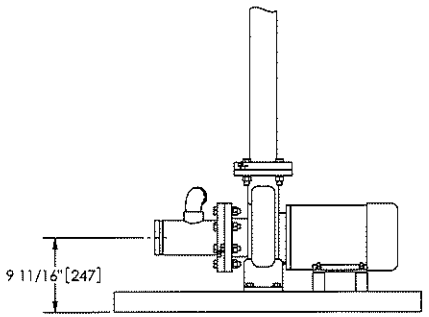
TOP VIEW



SIDE VIEW W/O SRV



FRONT VIEW W/O SPOOL/SRV



FRONT VIEW PUMP/SPOOL

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DO NOT SCALE DRAWING	APPROVALS	DATE	TITLE: SPX-0280-SRV, TBX SYSTEM HRF-930 VESSEL, SIDESTREAM HTX-0200, 460V 60HZ PLUS
MATERIAL: PER LAKOS SPEC	DRAWN: DLW	2/15/05	
FINISH: AS ASSEMBLED	ENGR: HSK	9/19/05	
	MFG: -	-	SIZE: C MODEL NO. DWG NO. 123474 REV. 01
	WORK ORDER	QTY.	SCALE: 1:12 EST. WT.: 1199 lb SHEET: 1 OF 1

DWG NO. 123474 SH 1 REV 01