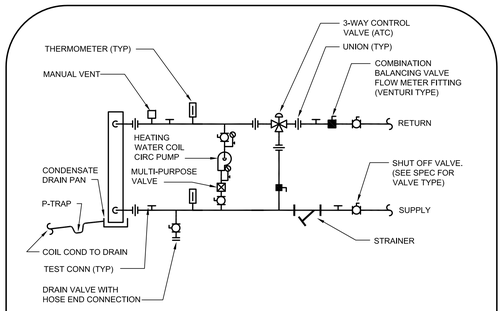
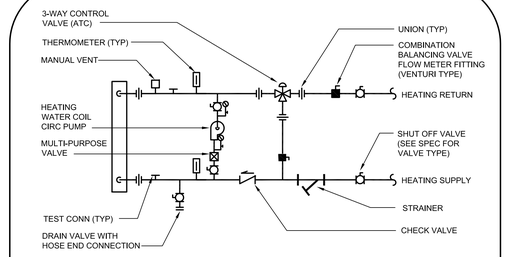


1 CHILLED WATER COIL CONNECTIONS

NO SCALE MDD003

NOTES:
1. COORDINATE INSTALLATION OF PIPING TO ALLOW FOR FULL SWING OF ACCESS DOORS, ALONG WITH SERVICING OF FILTERS, VALVES ETC.
2. WHERE MULTIPLE COILS OCCUR, PROVIDE THE FOLLOWING AT EACH COIL CONNECTION OF A MULTIPLE COIL ARRANGEMENT:
   a. SHUT-OFF VALVE AND TEST PORT IN SUPPLY PIPE.
   b. BALANCING VALVE AND TEST PORT IN RETURN PIPE.
3. WHERE FLOW METER FITTINGS ARE NOT AVAILABLE INTEGRAL WITH BALANCING VALVE, PROVIDE SEPARATE FLOW METER FITTINGS.

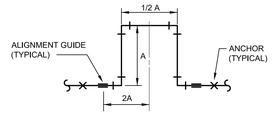


2 HEATING WATER COIL CONNECTIONS

NO SCALE MDD004

NOTES:
1. COORDINATE INSTALLATION OF PIPING TO ALLOW FOR FULL SWING OF ACCESS DOORS, ALONG WITH SERVICING OF FILTERS, VALVES ETC.
2. WHERE MULTIPLE COILS OCCUR, PROVIDE THE FOLLOWING AT EACH COIL CONNECTION OF A MULTIPLE COIL ARRANGEMENT:
   a. SHUT-OFF VALVE AND TEST PORT IN SUPPLY PIPE.
   b. BALANCING VALVE AND TEST PORT IN RETURN PIPE.
3. WHERE FLOW METER FITTINGS ARE NOT AVAILABLE INTEGRAL WITH BALANCING VALVE, PROVIDE SEPARATE FLOW METER FITTINGS.

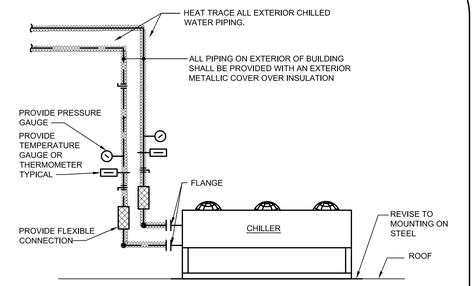
LENGTH BETWEEN ANCHORS IN FEET	PIPE SIZES									
	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
	"A" IN INCHES									
50	36	48	48	60	60	60	60	72	84	96
100	48	60	60	72	72	72	72	84	102	120
150	60	72	78	84	90	90	90	102	120	144
200	72	78	90	96	102	102	102	120	144	168



3 EXPANSION LOOP DETAIL

NO SCALE MDD009

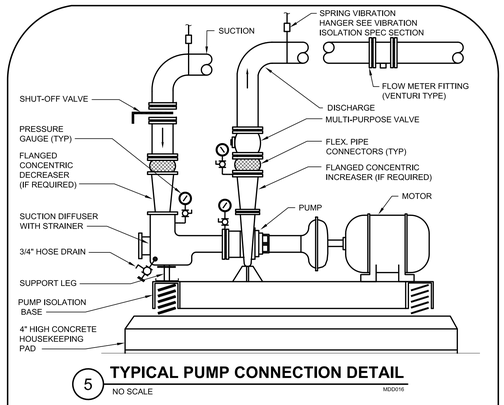
NOTE: WHEN LENGTH FALLS BETWEEN NUMBERS ON SCHEDULE, USE LARGER LENGTH.



4 AIR COOLED CHILLER DETAIL

NO SCALE MDD011A

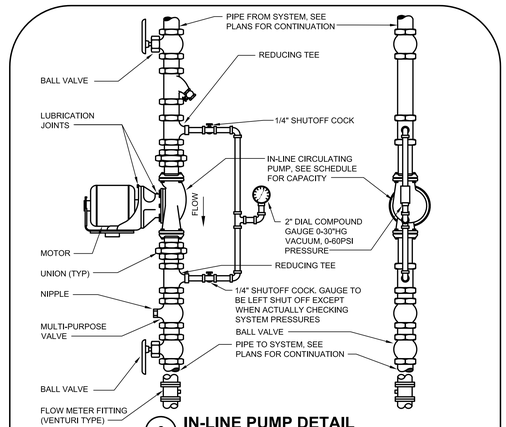
NOTES:
1. IF CHILLER HAS MULTIPLE CONNECTIONS, PROVIDE PIPING AS SHOWN ABOVE WITH ALL ACCESSORIES AS SHOWN ABOVE FOR EACH SET OF CONNECTIONS.
2. CHILLER FLOW SWITCH SHALL BE PROVIDED BY CHILLER MANUFACTURER.



5 TYPICAL PUMP CONNECTION DETAIL

NO SCALE MDD016

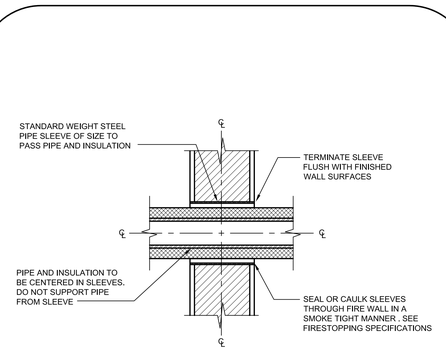
NOTES:
1. PIPES AND VALVES SHALL BE LINE SIZE.
2. SUCTION DIFFUSER SHALL BE SIZED BY PUMP INLET SIZE
3. PROVIDE CONCRETE INERTIA BASE WITH 95% EFFICIENT SPRING ISOLATORS.
4. PROVIDE MINIMUM LENGTH OF STRAIGHT PIPING UPSTREAM OF FLOW METER FITTING AS RECOMMENDED BY THE MANUFACTURER.
5. WHERE TWO PUMPS ARE PIPING TO A COMMON MANIFOLD AND OPERATE AS A PRIMARY AND STAND-BY (LEAD-LAG ARRANGEMENT) ONE FLOW METER FITTING MAY BE UTILIZED IN THE COMMON MANIFOLD PIPE.
6. THE MULT-PURPOSE VALVE SHALL BE USED FOR THROTTLING AND THE FLOW METER FITTING SHALL BE USED FOR FLOW MEASUREMENT.



6 IN-LINE PUMP DETAIL

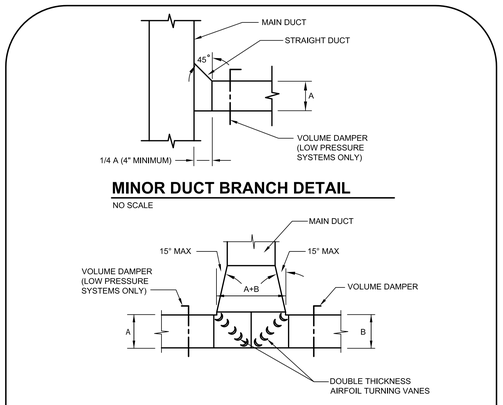
NO SCALE MDD018

NOTES:
1. PROVIDE MINIMUM LENGTH OF STRAIGHT PIPING UPSTREAM OF FLOW METER FITTING AS RECOMMENDED BY THE MANUFACTURER.
2. WHERE TWO PUMPS ARE PIPED TO A COMMON MANIFOLD AND OPERATE AS A PRIMARY AND STAND-BY (LEAD-LAG ARRANGEMENT) ONE FLOW METER FITTING MAY BE UTILIZED IN THE COMMON MANIFOLD PIPE.
3. THE MULTI-PURPOSE VALVE SHALL BE USED FOR THROTTLING AND THE FLOW METER FITTING SHALL BE USED FOR FLOW MEASUREMENT.



7 PIPE SLEEVE DETAIL

NO SCALE MDD023



MINOR DUCT BRANCH DETAIL

NO SCALE

8 RECTANGULAR ELBOW DUCT TEE

NO SCALE MDD030

NOTE: THIS DETAIL APPLIES TO BOTH ELBOWS & TEES IN VERTICAL AND HORIZONTAL APPLICATIONS.

Additions: | *Date:*

Revisions:

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Drawing Scale:
Drawing Start Date:
Drawing Finish Date:
Drawing Approved:

Drawing Title: MECHANICAL DETAILS
Approved: Associate Director for Operations:
Approved: Chief, Facilites Engineer:
Approved: Director, Medical Center:

Project Title: BUILDING 15 RENOVATION
Building No: 15
Checked: JDS
Drawn: CCH
Location: VAMHCS MEDICAL CENTER WILMINGTON, DELAWARE

Date: 12-19-2012
Project No: xxx-10-xxx
DRAWING NO: 15-H13
Dwg. – Of xx

DEPARTMENT OF VETERANS AFFAIRS

BKM# 070360.060

three inches = one foot
one and one half inch = one foot
one inch = one foot
three-quarters inch = one foot
one-half inch = one foot
three-eighths inch = one foot
one-quarter inch = one foot
one-eighth inch = one foot

1 2 3 4 5 6 7 8

A B C D E