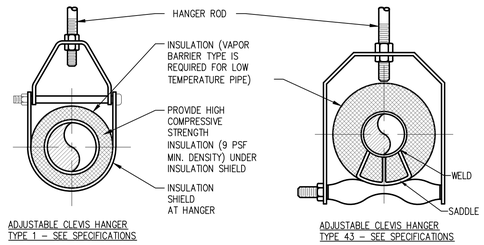
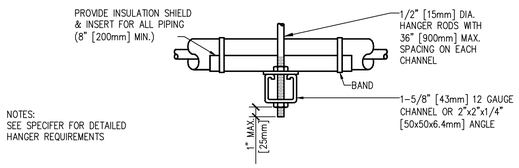


ADJUSTABLE CLEVIS HANGER TYPE 1 – SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 – SEE SPECIFICATIONS

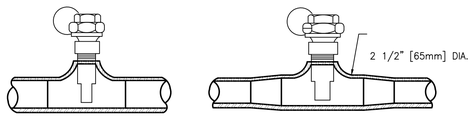


NOTES:
SEE SPECIFER FOR DETAILED HANGER REQUIREMENTS

SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. [453KG] UNIFORM LOAD

MAXIMUM PIPE/TUBING SUPPORT SPACING																			
NOM. SIZE	IN. [mm]	THRU 3/4 THRU [20]	1 [25]	1 1/4 [32]	1 1/2 [40]	2 [50]	2 1/2 [65]	3 [75]	4 [100]	5 [125]	6 [150]	8 [200]	10 [250]	12 [300]	14 [350]	16 [400]	18 [450]	20 [500]	24 [600]
PIPE	FT. [mm]	7 [2100]	7 [2100]	7 [2100]	9 [2700]	10 [3000]	11 [3400]	12 [3700]	14 [4100]	16 [4900]	17 [5200]	19 [5800]	22 [6700]	23 [7000]	25 [7600]	27 [8200]	28 [8500]	30 [9100]	32 [9600]
TUBING	FT. [mm]	5 FT [1500]	6 [1800]	7 [2100]	8 [2400]	8 [2400]	9 [2700]	10 [3000]	12 [3700]	13 [4000]	14 [4100]	16 [4900]	–	–	–	–	–	–	–
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																			

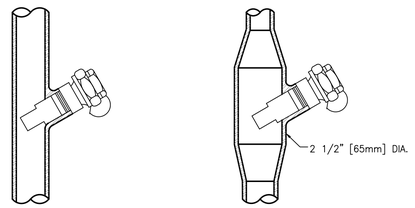
PIPING SUPPORT AND HANGING DETAIL
NOT TO SCALE: 7



ABOVE 2" [50mm] DIA. PIPE

2" [50mm] DIA. & SMALLER

HORIZONTAL

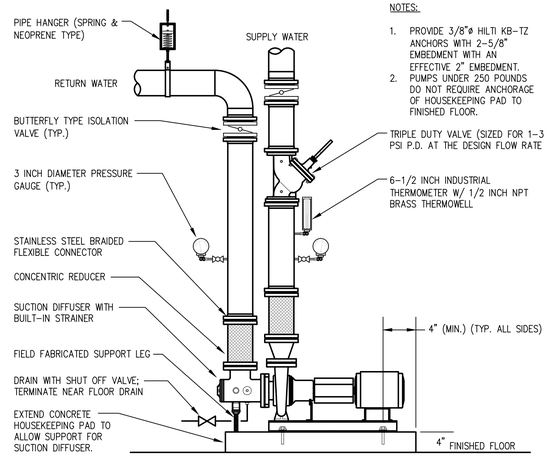


ABOVE 2" [50mm] DIA. PIPE

2" [50mm] DIA. & SMALLER

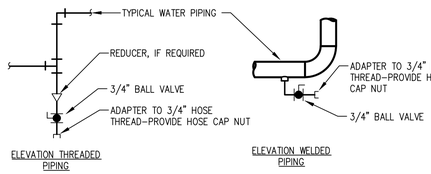
VERTICAL

INSTALLATION OF THERMOMETER WELLS DETAIL
NOT TO SCALE: 4



NOTES:
1. PROVIDE 3/8"ø HILTI KB–TZ ANCHORS WITH 2–5/8" EMBEDMENT WITH AN EFFECTIVE 2" EMBEDMENT.
2. PUMPS UNDER 250 POUNDS DO NOT REQUIRE ANCHORAGE OF HOUSEKEEPING PAD TO FINISHED FLOOR.

END SUCTION PUMP HOOK-UP DETAIL
NOT TO SCALE: 1



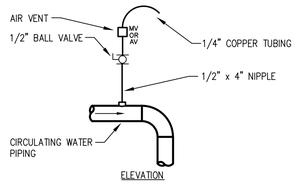
ELEVATION THREADED PIPING

ELEVATION WELDED PIPING

TYPICAL CHILLED AND HOT WATER PIPING DRAIN VALVE CONNECTIONS

NOTES:
1. DRAIN ALL LOW POINTS AS INDICATED ABOVE.

2. WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS LOCATE DRAIN AT BOTTOM OF SCALE POCKET.



ELEVATION

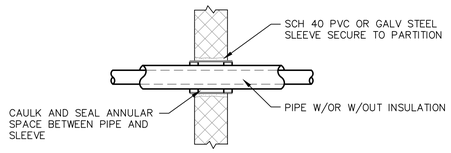
TYPICAL MANUAL AIR VENT

NOTES:
1. VENT ALL HIGH POINTS INDICATED ABOVE.

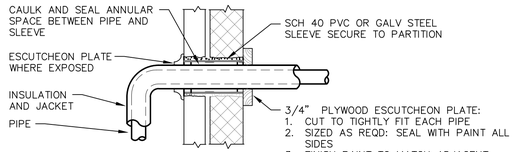
2. IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.

DRAIN VALVE AND AIR VENT CONNECTIONS DETAIL
NOT TO SCALE: 8

NOTE:
WHERE PIPING IS EXPOSED AT FINISHED WALLS, FLUSH MOUNT SLEEVE AND PROVIDE ESCUTCHEON PLATE.

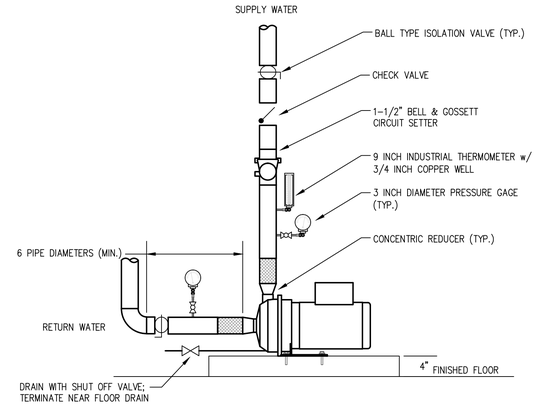


INTERIOR EXTERIOR

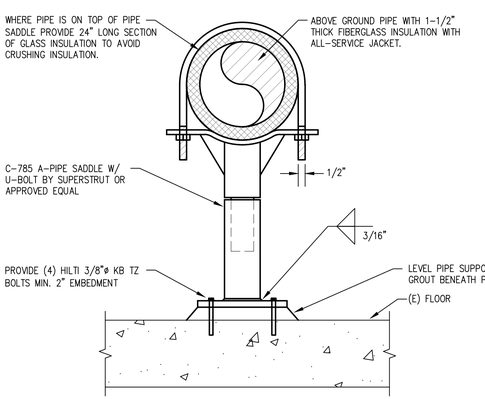


NOTES:
1. TYP FOR NON–INSULATED PIPE AND CONDUIT
2. TYP FOR MASONRY OR CONCRETE WALL

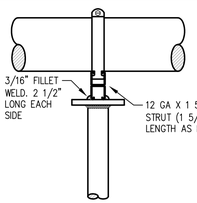
PIPE PENETRATION THROUGH WALL DETAIL
NOT TO SCALE: 5



CLOSED COUPLED PUMP HOOK-UP DETAIL
SCALE: NONE 2

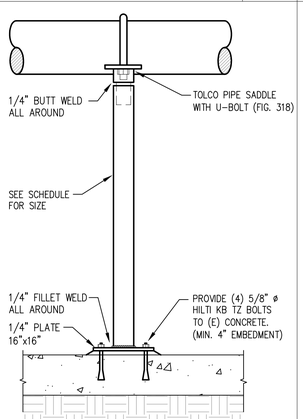


PIPE SUPPORT DETAIL
NOT TO SCALE: 10



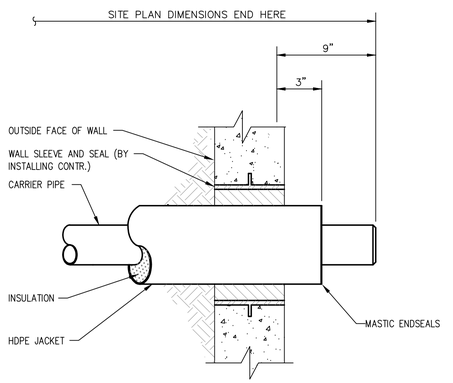
ALTERNATIVE PIPE ATTACHMENT

FLOOR STANCHION SCHEDULE (SCH. 40 PIPE)	
HEIGHT (FT)	DIAMETER (IN)
< 4	4
4–8	6
> 8	8

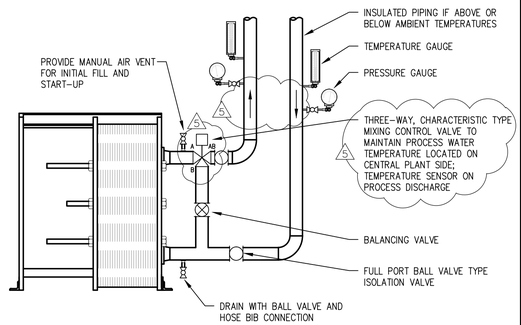


NOTE:
ALL GALVANIZED COMPONENTS. TOUCH UP AFTER WELDING W/ APPROVED COLD GALV. COMPOUND – (2) COATS

PIPE STANCHION DETAILS
NOT TO SCALE: 9



WALL PENETRATION DETAIL
NOT TO SCALE: 6



NOTES:
1. HEAT EXCHANGERS SELECTED TYPICALLY HAVE ALL PIPING ON A COMMON SIDE. DEPENDING ON THE HEAT EXCHANGER SELECTED, THE PIPING MAY BE ON BOTH SIDES.
2. PROVIDE AN AUTOMATIC AIR VENT AT THE PIPING SYSTEM HIGH POINTS OR ANYWHERE THAT AIR MAY BECOME TRAPPED IN THE LINES.
3. PIPING SHOULD BE SUPPORTED SO NO UNDER STRESS IS PLACED ON THE HEAT EXCHANGER CONNECTIONS.

REGISTERED PROFESSIONAL ENGINEER WILLIAM T. BISSETT JR. No.028188 Exp. 06/30/13 MECHANICAL STATE OF CALIFORNIA

TYPICAL HEAT EXCHANGER HOOK-UP DETAIL
NOT TO SCALE: 3

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www.kesolutions.com

CBS TELEVISION CITY
FUEL CELL INSTALLATION PROJECT
7800 BEVERLY BLVD.
LOS ANGELES, CALIFORNIA 90036

MECHANICAL DETAILS

ID	DATE	REMARKS
1	7/02/12	PRELIMINARY DESIGN REVIEW
2	8/20/12	PLAN CHECK
3	9/4/12	BID CLARIFICATIONS
4	9/19/12	UTC RECOMMENDED CORRECTIONS
5	9/25/12	UTC COMMENTS/REVISIONS
6	11/15/12	PLAN CHECK CORRECTIONS
7	12/10/12	FIELD CLARIFICATIONS

ENGR:	WTB
DRWN BY:	WTB
CHCK'D BY:	WTB
DATE:	9/19/12
JOB NO.:	12–010
SCALE:	AS NOTED

SHEET
M4.2