

4/24/2026 3:31:04 PM Autodesk Docs\\Baxter and Vantive- Mountain Home\\BAXTER_VANTIVE_Mountain Home\\BAXTER_VANTIVE_MECH\\ELEC\\CP_025.rvt

MECHANICAL ABBREVIATIONS:

@	AT	H	HEIGHT
&	AND	HGRH	HOT GAS REHEAT
AFF	ABOVE FINISHED FLOOR	HP	HEAT PUMP
A/C	ABOVE CEILING	HR	HOUR
AC	AIR CONDITIONER	HSPF	HEATING SEASONAL PERFORMANCE FACTOR
AD	AUTOMATIC DAMPER	HTG	HEATING
ADJ	ADJUSTABLE	HTR	HEATER
AFMS	AIRFLOW MEASURING STATION	HUH	HYDRONIC UNIT HEATER
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
AHU	AIR HANDLING UNIT	HX	HEAT EXCHANGER
AMB	AMBIENT	HZ	HERTZ
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION	IMC	INTERNATIONAL MECHANICAL CODE
APPROX. ±	APPROXIMATELY	IN	INCH, INCHES
ARC	AIR CURTAIN	IN WC	INCHES WATER COLUMN
ARCH	ARCHITECT, ARCHITECTURAL	IN WG	INCHES WATER GAUGE
AS	AIR SEPARATOR	IPLV	INTEGRATED PART LOAD VALUE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS	KW	KILOWATTS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	L	LENGTH, LOUVER (WALL)
AUX	AUXILIARY	LAT	LEAVING AIR TEMPERATURE
AWS	AMERICAN WELDING SOCIETY	LBS	POUNDS
AWG	AMERICAN WIRE GAUGE	LBF/IN2	POUNDS FORCE PER SQUARE INCH
		LWT	LEAVING WATER TEMPERATURE
B	BOILER	MAX	MAXIMUM
BD	BACKDRAFT DAMPER	MBH	1000 BRITISH THERMAL UNITS
BLDG	BUILDING	MCA	MINIMUM CIRCUIT AMPACITY
BOD	BOTTOM OF DUCT	MEV	MINIMUM EFFICIENCY REPORTING VALUE
BF	BOOSTER FAN	MECH	MECHANICAL
B/F	BELOW FLOOR	MFR, MFG	MANUFACTURER, MANUFACTURING
B/S	BELOW SLAB	MIN	MINIMUM
BT	BUFFER TANK	MOCP, MOP	MAXIMUM OVER CURRENT PROTECTION
BTU, BTUH	BRITISH THERMAL UNITS, BTUs PER HOUR	MOD	MOTOR OPERATED DAMPER
CA	COMBUSTION AIR INTAKE	MSS	MANUFACTURER'S STANDARDIZATION SOCIETY
CAV	CONSTANT AIR VOLUME	MTD	MOUNTED
CCC	CLOSED CIRCUIT COOLER	MUW	MAKE-UP WATER (POTABLE/ DOMESTIC)
CD	CONDENSATE DRAIN	MVD	MANUAL VOLUME DAMPER
CDR	CONDENSATE DRAIN RETURN (STEAM)		
CFM	CUBIC FEET PER MINUTE	N	NITROGEN
CH	CHILLER	NC	NOISE CRITERIA
CHWR	CHILLED WATER RETURN	N.C.	NORMALLY CLOSED
CHWS	CHILLED WATER SUPPLY	NO.	NUMBER
CLG	COOLING	N.O.	NORMALLY OPEN
CMU	CONCRETE MASONRY UNIT	NPLV	NET PART LOAD VALUE
CO	CLEANOUT	NTS	NOT TO SCALE
CO2	CARBON DIOXIDE		
CONC	CONCRETE	OA	OUTSIDE AIR
CONN	CONNECT, CONNECTING, CONNECTION	OD	OUTSIDE DAMPER
CONT	CONTINUED		
COP	COEFFICIENT OF PERFORMANCE	P&T	PRESSURE AND TEMPERATURE
COR	CONTRACTING OFFICER'S (OWNER'S) REPRESENTATIVE	PD	PNEUMATIC-ACTUATED DAMPER
CRP	CONDENSATE RETURN PUMP	PDT	PRESSURE DIFFERENTIAL TRANSMITTER
CU	CONDENSING UNIT	PH	PHASE
CWR	CONDENSER WATER RETURN	PLBG	PLUMBING
CWS	CONDENSER WATER SUPPLY	PLC	PROGRAMMABLE LOGIC CONTROLLER
		PPM	PARTS PER MILLION
		PRV	PRESSURE RELIEF VALVE
D	DEPTH	QTY	QUANTITY
DB, Tdb	DRY BULB (TEMPERATURE)		
dBA	DECIBELS	RA	RETURN AIR
DDC	DIRECT DIGITAL CONTROLS	RG	RETURN GRILLE
DEG. F (°F)	DEGREES FAHRENHEIT	RH	RELATIVE HUMIDITY, ROOF HOOD
DF	DESTRATIFICATION FAN	RHG	REFRIGERANT HOT GAS
DH	DEHUMIDIFIER	RL	REFRIGERANT LIQUID
DIA, Ø	DIAMETER	RM	ROOM
DIV	DIVISION	RPM	REVOLUTIONS PER MINUTE
DN	DOWN	RS	REFRIGERANT SUCTION
DP	DIFFERENTIAL PRESSURE	RTU	ROOFTOP UNIT
DSCU	DUCTLESS SPLIT CONDENSING UNIT		
DSFO	DUCTLESS SPLIT FAN COIL UNIT	SA	SUPPLY AIR
DSHP	DUCTLESS SPLIT HEAT PUMP	SD	SMOKE DAMPER
DSS	DUCTLESS SPLIT SYSTEM (INDOOR UNIT)	SEER	SEASONAL ENERGY EFFICIENCY RATIO
DWG	DRAWING	SF	SUPPLY FAN
DX	DIRECT EXPANSION	SKD	SMOKE DETECTOR
		SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
EA	EXHAUST AIR	SP	STATIC PRESSURE
EAT	ENTERING AIR TEMPERATURE	SS	STAINLESS STEEL
EER	ENERGY EFFICIENCY RATIO	STM	STEAM
EF	EXHAUST FAN	SW	SEALING WATER
EFF	EFFICIENCY	S-CW	SOFT COLD WATER
ELEC	ELECTRICAL		
EO	ETHYLENE OXIDE	TSTAT	THERMOSTAT
ERU	ENERGY RECOVERY UNIT	TEMP	TEMPERATURE
ERV	ENERGY RECOVERY VENTILATOR	TG	TRANSFER GRILLE
ET	EXPANSION TANK	THA	TOTAL HEAT ABSORPTION
ESP	EXTERNAL STATIC PRESSURE	THR	TOTAL HEAT REJECTION
EUH	ELECTRIC UNIT HEATER	TOC	TOP OF CONCRETE
EWT	ENTERING WATER TEMPERATURE	TOR	TOP OF ROOF
EXT	EXTERIOR	TYP	TEMPERATURE/ PRESSURE TEST PORT TYPICAL
EXH	EXHAUST		
EXST, (E)	EXISTING	UH	UNIT HEATER
		UL	UNDERWRITER'S LABORATORY
FCU	FAN COIL UNIT	UMCS	UTILITY MONITORING AND CONTROL SYSTEM
FD	FIRE DAMPER		
FFE	FINISHED FLOOR ELEVATION	V	VOLTAGE, VOLTS
FLA	FULL LOAD AMPS	VAV	VARIABLE AIR VOLUME
FOB	FLAT ON BOTTOM	VBP	VACUUM BOOSTER PUMP
FOT	FLAT ON TOP	VD	VOLUME DAMPER
FPM	FEET PER MINUTE	VELO	VELOCITY
FSD	FIRE SMOKE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
FT	FOOT, FEET	VSD	VARIABLE SPEED DRIVE
FT WG	FEET WATER GAUGE		
FV	FLUE VENT, FACE VELOCITY	W	WATT(S)
		W/	WITH
GA	GAGE	W/O	WITHOUT
GC	GENERAL CONTRACTOR	WB, Twb	WET BULB (TEMPERATURE)
GPM	GALLONS PER MINUTE	WD	WIDE, WIDTH
		WMS	WIRE MESH SCREEN
		XV	SHUT-OFF VALVE

DUCTWORK LEGEND:

	DUCT-MOUNTED EXHAUST/RETURN GRILLE. SIZE INDICATED ON FLOORPLANS.
	DUCT-MOUNTED SUPPLY GRILLE. SIZE INDICATED ON FLOORPLANS.
	ROUND DUCT. DIAMETER INDICATED IN INCHES.
	FLAT OVAL DUCT. SIZE INDICATED IN INCHES, FIRST NUMBER IS SIDE SHOWN
	RECTANGULAR DUCT, SIZE INDICATED IN INCHES, FIRST NUMBER IS SIDE SHOWN
	RECTANGULAR DUCT. SIZE INDICATED IN INCHES, FIRST NUMBER IS SIDE SHOWN. DASHED LINES INDICATE ACOUSTICAL LINER
	90 DEGREE DUCT ELBOW WITH TURNING VANES
	RADIUS DUCT ELBOW - ROUND OR RECTANGULAR (MIN. 1.5 RADIUS UNLESS OTHERWISE NOTED)
	RECTANGULAR DUCT BRANCH TAKE-OFF WITH 45 DEGREE BRANCH INLET
	SQUARE TO ROUND DUCT BRANCH TAKE-OFF WITH 45 DEGREE BRANCH INLET
	FLARED SPIN-IN WITH DAMPER AND FLEX DUCT (DIFFUSER CONNECTION)
	ROUND DUCT BRANCH TAKE-OFF FROM RECTANGULAR MAIN WITH CONICAL TAP
	DUCT SIZE TRANSITION
	DUCT SIZE TRANSITION RECTANGULAR TO ROUND
	FLEXIBLE DUCT CONNECTION
	SUPPLY OR OUTSIDE AIR DUCT UP
	SUPPLY OR OUTSIDE AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT UP
	EXHAUST AIR DUCT DOWN
	IN-LINE 90 DEGREE RISE/DROP IN SUPPLY DUCT (RIGHT SIDE IS HIGHER)
	IN-LINE 90 DEGREE RISE/DROP IN SUPPLY DUCT (LEFT SIDE IS HIGHER)
	IN-LINE 90 DEGREE RISE/DROP IN RETURN DUCT (RIGHT SIDE IS HIGHER)
	IN-LINE 90 DEGREE RISE/DROP IN RETURN DUCT (LEFT SIDE IS HIGHER)
	IN-LINE 90 DEGREE RISE/DROP IN EXHAUST DUCT (RIGHT SIDE IS HIGHER)
	IN-LINE 90 DEGREE RISE/DROP IN EXHAUST DUCT (LEFT SIDE IS HIGHER)
	DUCT MOUNTED HUMIDIFIER
	DUCT MOUNTED SMOKE DETECTOR
	VOLUME/BALANCING DAMPER (LABEL MAY BE OMITTED)
	BACKDRAFT DAMPER (COUNTER-BALANCED UNLESS OTHERWISE NOTED)
	DAMPER TYPE: M - MOTORIZED DAMPER (ELECTRIC) P - PNEUMATIC-ACTUATED DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION FIRE/SMOKE DAMPER
	SUPPLY AIR DEVICE - FLOW ARROWS INDICATE AIR PATTERN. NO FLOW ARROWS SHOWN INDICATES 4-WAY PATTERN.
	RETURN AIR DEVICE
	EXHAUST AIR DEVICE

PIPING LEGEND:

	COMPRESSED AIR
	CONDENSATE DRAIN RETURN (STEAM)
	CHILLED WATER RETURN
	CHILLED WATER SUPPLY
	COLD WATER (DOMESTIC)
	CONDENSER WATER RETURN
	CONDENSER WATER SUPPLY
	ETHYLENE OXIDE
	NITROGEN
	PUMPED CONDENSATE RETURN (STEAM)
	REFRIGERANT HOT GAS
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	STEAM
	SOFT COLD WATER
	ELBOW UP
	ELBOW DOWN
	RISE OR DROP
	BRANCH BOTTOM CONNECTION
	BRANCH TOP CONNECTION
	TEE OUTLET UP
	TEE OUTLET DOWN
	PIPE CAP
	DIRECTION OF FLOW
	DIRECTION OF SLOPE DOWN
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	UNION
	PIPE FLANGE
	PIPE ANCHOR (PA)
	PIPE GUIDE (PG)
	EXPANSION JOINT
	STRAINER WITH BLOWDOWN VALVE, CAP, AND CHAIN
	GATE VALVE
	BALL VALVE
	FLOW MEASURING/BALANCING/SHUT-OFF VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	PRESSURE/TEMPERATURE TAP WITH BALL VALVE
	FLOW SWITCH
	PRESSURE SWITCH
	PLUG VALVE
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	T&P RELIEF VALVE
	PRESSURE GAUGE WITH GAUGE COCK
	THERMOMETER
	FLEXIBLE CONNECTION
	CLEANOUT
	FLOOR CLEANOUT
	WATER METER
	FLEXIBLE PIPE CONNECTION

MISCELLANEOUS LEGEND:

	REMOTE CONTROLLER (VRF SYSTEM)
	THERMOSTAT
	HUMIDISTAT
	THERMOSTAT / HUMIDISTAT
	START / STOP SWITCH
	FIRESTAT
	TEMPERATURE SENSOR
	HUMIDITY SENSOR
	STATIC PRESSURE SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	CARBON MONOXIDE SENSOR
	CARBON DIOXIDE SENSOR
	AIR QUALITY SENSOR
	VARIABLE FREQUENCY DRIVE
	KEYNOTE
	ROUND
	OVAL OR FLAT OVAL
	FUTURE CONSTRUCTION
	PHASED CONSTRUCTION
	NOT IN SCOPE OF WORK
	DUCT SMOKE DETECTOR

AIR DISTRIBUTION DEVICE TAGS:

	CONNECTION SIZE (X\"X\"X\" INDICATES RECTANGULAR, X\"X\" INDICATES OVAL, X\"Ø INDICATES ROUND)
	DIFFUSER TYPE
	NORMAL OPERATION AIRFLOW (CFM)\"
	TYPICAL OF QUANTITY INDICATED
	FLOW ARROW
	DUCT PRESSURE CLASSIFICATION X-2, -4, -6, -8 REFER TO MECHANICAL DETAIL SHEETS FOR ASSOCIATED NEGATIVE DUCT PRESSURE TABLE AND CONSTRUCTION REQUIREMENTS.

DRAWING REFERENCE KEY:

	REFER TO
	DETAIL NUMBER
	SHEET NUMBER OF DETAIL

DEMOLITION KEY:

	DEMOLISHED
	CONNECT TO EXISTING
	DISCONNECT FROM EXISTING

NORTH ARROW:

	PLAN NORTH
	TRUE NORTH

EOR/AOR SEAL

COA SEAL

CLIENT INFORMATION

Vantive

PROJECT NAME

VANTIVE
TUBING
CLEAN ROOM

1900 AR-201
MOUNTAIN HOME,
ARKANSAS 72653

DRAWING ISSUE

04/24/2026	01/23/2026	11/14/2025
DATE	DATE	DATE

ISSUED FOR BID, EQ BID	ISSUED FOR APPROVAL	ISSUED FOR REVIEW	DESCRIPTION
CLARIFICATIONS	FOR REVIEW	FOR REVIEW	

D C A MARK

DESIGNED BY:	JC
DRAWN BY:	JS
CHECKED BY:	JC
SUBMITTED BY:	CL
DATE:	04/24/2026
PROJECT #:	1241011

SHEET TITLE

PROCESS
ABBREVIATIONS
AND LEGENDS

SHEET NUMBER

DM002

ORIGINAL SHEET SIZE:
36" X 42"