

AIR-TO-AIR HEAT EXCHANGERS															
MARK	MODEL NO.	TYPE	SUPPLY (SUMMER)			EXHAUST (SUMMER)			SUPPLY (WINTER)			EXHAUST (WINTER)			REMARKS
			CFM	EAT	LAT	CFM	EAT	LAT	CFM	EAT	LAT	CFM	EAT	LAT	
ERV-2	RENEWARE QS = J	FIXED PLATE HYDRAULIC	1690	95°F	80°F	1890	75°F	-	1690	-20°F	44°F	1890	70°F	-	-

REFRIGERANT BRANCH SELECTOR BOXES							4800 FT ELEVATION	
MARK	SYSTEM	MODEL NO.	CONN. COOL'G IN/SH	CONN. HEAT'G IN/SH	VOLTS	MCA	REMARKS	
BS-2	HRU-1	BASEMENT FLOOR	DAIKIN BS10Q041AVU	290.0	-	208 1PH	1.0	FULL PORT BALL VALVES UP AND DOWN STREAM. SEE MFR
BS-4	HRU-2	2nd FLOOR	DAIKIN BS4Q041AVU	144.0	-	208 1PH	0.4	FULL PORT BALL VALVES UP AND DOWN STREAM. SEE MFR
BS-5	HRU-2	2nd FLOOR	DAIKIN BS4Q041AVU	144.0	-	208 1PH	0.4	FULL PORT BALL VALVES UP AND DOWN STREAM. SEE MFR
BS-6	HRU-2	2nd FLOOR	DAIKIN BS4H036TVU	36.0	-	208 1PH	0.1	FULL PORT BALL VALVES UP AND DOWN STREAM. SEE MFR

BRANCH DUCT SIZES: 1) FULLSIZE PLENUM BOXES TO GRILLES AND REGISTERS 2) 50-125 CFM = 6" 3) 125-250 CFM = 8" 4) 250-400 CFM = 10" 5) 400-650 CFM = 12"

1) WALL MOUNT FIXTURES SHALL BE INSTALLED WITH FLOOR MOUNTED CONCEALED ARM TYPE CARRIER SUPPORTS WITHIN THE WALLS 2) EXPOSED ACCESSORIES SHALL INCLUDE CHROME PLATED ESCU
P-TRAPS AND EXTENSIONS, QUARTER-TURN ANGLE STOPS, AND BRADED STAINLESS STEEL SUPPLIES 3) ALL WALL PENETRATIONS SHALL BE FINISHED WITH CHROME PLATED ESCU
P-ELEVATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS AND REQUEST WRITTEN CLARIFICATION WHERE SPECIFICATIONS DIFFER

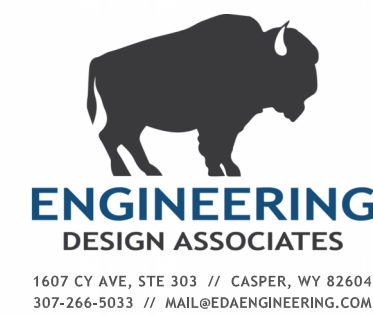
1) ACCESSORIES OF SIMILAR SIZE, MATERIAL, CONSTRUCTION, AND PURPOSE AS MANUFACTURED BY SMITH, JOSAM, WADE, WATTS, ZURN, WOODFORD, AND OTHERS ARE ACCEPTABLE

1) ENABLE OPERATION WITH ERV 2) MAINTAIN 36-IN NEC CLEARANCE AROUND CONTROL PANEL 3) TIME DELAY RELAY 4) DUCT THERMOSTAT WITH SENSOR TO 55°F 5) DISCONNECT SWITCH

1. CONTRACTORS SHALL COMPLY WITH ALL STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES.
2. MATERIALS SHALL CONFORM TO STANDARDS PRESCRIBED BY LOCALLY ADOPTEED CODES BE APPROVED FOR USE BY THE AUTHORITY HAVING JURISDICTION.
3. EQUIPMENT SHALL BE USED, LABELED, AND INSTALLED IN ACCORDANCE WITH THE MFC INSTALLATION INSTRUCTIONS.
4. SECURE AND PAY FOR ALL PERMITS, FEES, TAXES, INSURANCES, AND UTILITY COSTS.
5. TO UTILITIES SHALL BE IN ACCORDANCE WITH THE LOCALITY UTILITY.
6. CONTRACTORS ARE TO EXAMINE THE SITE AND DOCUMENTS OF OTHER TRADES AND BE FAMILIAR WITH THE FULL SCOPE OF WORK PRIOR TO FABRICATING MATERIALS.
7. DRAWINGS ARE DIAGRAMATIC REPRESENTING GENERAL ARRANGEMENT OF THE WORK. DIMENSIONS SHALL BE VERIFIED ON THE JOB SITE.
8. SCHEMATIC DIAGRAMS DENOTE EQUIPMENT RELATIONSHIPS ONLY. SEE FLOOR PLANS FOR MAJOR EQUIPMENT LOCATIONS.
9. CONTRACTORS SHALL BE RESPONSIBLE FOR EXACT FITTING COUNTS, LENGTH OF WATER OFFSETS REQUIRED, CLEARANCES, AND AN ORGANIZED FIELD INSTALLATION.
10. DUCT SIZES SHOWN AND NOTED ON THE DRAWINGS INDICATE CARRIER INSECT DIMENSIONS.

ABBR	IDENTIFICATION	ABBR	IDENTIFICATION	ABBR	IDENTIFICATION	ABBR	IDENTIFICATION
ABV	ABOVE	EA	EXHAUST AIR	IAQ	INDOOR AIR QUALITY	RR	RELATIVE HUMIDITY
ACH	AIR CHANGES PER HOUR	EAT	ENTERING AIR TEMP	LWT	LEAVING WATER TEMP	RPV	REVOLUTIONS PER MINUT
AD	ACCESS DOOR	EER	ENERGY EFF RATING	MAT	MIXED AIR TEMP	RTU	ROOF TOP UNIT
ADJ	ADJUSTABLE	EF	EFFICIENCY	MBH	THOUSAND BTU PER HOUR	SA	SUPPLY AIR
AFT	ABOVE FINISHED FLOOR	EC	ELECTRICAL CONTRACTOR	MFR	MANUFACTURER	SAT	SUPPLY AIR TEMP
AFG	ABOVE FINISHED GRADE	EXTG	EXISTING	MC	MECHANICAL CONTRACTOR	SGM	CGM AT SEA LEVEL
AHU	AIR HANDLING UNIT	ESP	EXTERNAL STATIC PRESS	MCA	MIN CROUCH AMPLIFY	SMH	SENSIBLE MBH
APD	AIR PRESSURE DROP	ENT	ENTERING WATER TEMP	MAX	MAXIMUM	STB	STATIST
AV	AIR VENT	FLA	FULL LOAD AMPS	MIN	MINIMUM	STD	STANDARD
ACFM	CFM AT ALTITUDE	FLR	FLOOR	NA	NOT APPLICABLE	TBD	TO BE DETERMINED
BFC	BELOW FINISHED CEILING	FPE	FINISHED FLOOR ELEV	NC	NOISE CRITERIA	TEMP	TEMPERATURE
BLOG	BUILDING	FPI	FINS PER INCH	NC	NOT IN CONTRACT	THRU	THROUGH
BLW	BELOW	FM	FEET PER MINUTE	OA	OUTSIDE AIR	TSP	TOTAL STATIC PRESSURE
BTU	BRITISH THERMAL UNIT	GAL	GALLONS	OAT	OUTSIDE AIR TEMP	TP	TYPICAL
BTUH	BTU PER HOUR	GC	GENERAL CONTRACTOR	OD	OUTSIDE DIAMETER	TD	TRANSFER DUCT
BTM	BOTTOM	GPH	GALLONS PER HOUR	PC	PLUMBING CONTRACTOR	UCD	UNDERGUT DOOR
CBM	CUBIC FEET PER MINUTE	GPM	GALLONS PER MINUTE	PSI	LBS PER SQUARE INCH	UNO	UNLESS NOTED OTHERWISE
CLG	CEILING	HMBH	HEATING MBH	PSA	PSI ABSOLUTE	VAV	VARIABLE AIR VOLUME
CNC	CONNECTION TO EXTG	HT	HEIGHT	PSG	PSI GAUGE	VSD	VARIABLE SPEED DRIVE
DDC	DIRECT DIGITAL CONTROL	ID	INSIDE DIAMETER	RA	RETURN AIR	WPD	WATER PRESSURE DROP
DA	DIAMETER	LBS	POUNDS	REQD	REQUIRED	WT	WEIGHT

SYMBOL	IDENTIFICATION	SYMBOL	IDENTIFICATION	SYMBOL	IDENTIFICATION
— W —	WATER SERVICE	— FP —	FIRE PROTECTION	— G —	NATURAL GAS LINE
— — COLD WATER (CW)		— HW —	HOT WATER (HW)	— —	RECORD WATER (RW)
— RD —	ROOF DRAINS (RD)	— OD —	OVERFLOW DRAINS (OD)	○ —	VENT THRU ROOF (VTR)
— WASTE CLEAN OUT (CO)		— SDR —	SANITARY BLDG WASTE	— V —	SANITARY SEWER VENT
— FLOOR CLEAN OUT (FCO)		— FDR —	FLOOR DRAIN (FD)	— P —	PERFORATED DRAIN
— WALL CLEAN OUT (WCO)		— FSR —	FLOOR SINK (FS)	— C —	CONDENSATE DRAIN
— C —	PIPE ELBOW DOWN	— T —	PIPE TEE DOWN	— X —	GAS COOK/SHUT-OFF
— U —	PIPE ELBOW UP	— T —	PIPE TEE UP	— D —	DRAIN VALVE
— HWS —	HEATING WATER SUPPLY	— CWS —	CHILLED WATER SUPPLY	— RL —	LIQUID REFRIGERANT
— HWR —	HEATING WATER RETURN	— CWR —	CHILLED WATER RETURN	— RS —	REFRIGERANT HOT GAS
— S —	SHUT-OFF VALVE	— B —	BALL VALVE	— B —	BUTTERFLY VALVE
— C —	CHECK VALVE	— B —	BALANCING VALVE	— S —	STRAINER
— R —	PIPE OR DUCT REDUCER	— B —	BACKFLOW DEVICE	— F —	FLEXIBLE CONNECTION
— U —	PIPING UNION	— T —	TAP TEST PLUG	— V —	VENTURIO FLOW DEVICE
— X —	PIPING ANCHORS	— G —	PIPING GUIDES	— J —	EXPANSION JOINT
— C —	2-WAY CONTROL VALVE	— C —	3-WAY CONTROL VALVE	— R —	PRESS REDUCING VALVE
— T —	TEMPERATURE GAUGE	— P —	PRESSURE GAUGE	— C —	CONTROLS DEVICE
— R —	RELIEF VALVE	— V —	AIR VENTS	— T —	TRIPLE DUTY VALVE
— C —	CONNECTION TO EXIST'G	— C —	CO2 SENSOR	— F —	FIRE DAMPER
— T —	ROOM THERMOSTAT	— P —	PRESSURE SENSOR	— S —	SMOKE DAMPER
— M —	MOTOR OPERATED DAMPER	— O —	OCCUPANCY SENSOR	— S —	FIRE/SMOKE DAMPER
— D —	SUPPLY DUCT	— R —	RETURN DUCT	— E —	EXHAUST DUCT
— E —	DUCT ELBOW UP	— E —	DUCT ELBOW DOWN	— T —	TURNING VANES
— L —	ACOUSTICALLY LINED DUCT	— F —	FLEXIBLE CONNECTION	— I —	INSULATED DUCT
— N —	NECK SIZE OF AIR DEVICE	— V —	VOLUME DAMPER	— L —	LINED SOUND BOOT
— T —	TYPE OF AIR DEVICE	— S —	CONICAL SPIN-IN	— G —	RETURN GRILLE
— M —	MULTIPLE AIR DEVICES	— A —	ACOUSTIC FLEX DUCT	— R —	ROUGH DUCT CONNECTION
— C —	CFM OF AIR DEVICE	— D —	SUPPLY DEFUSER	— R —	EXHAUST REGISTER



 **Stateline** № 7
ARCHITECTS
401 South Center Street
Boulder, CO 80501
303.445.5471 fax
303.445.5471

in Campus WY
www.stateline.com

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