

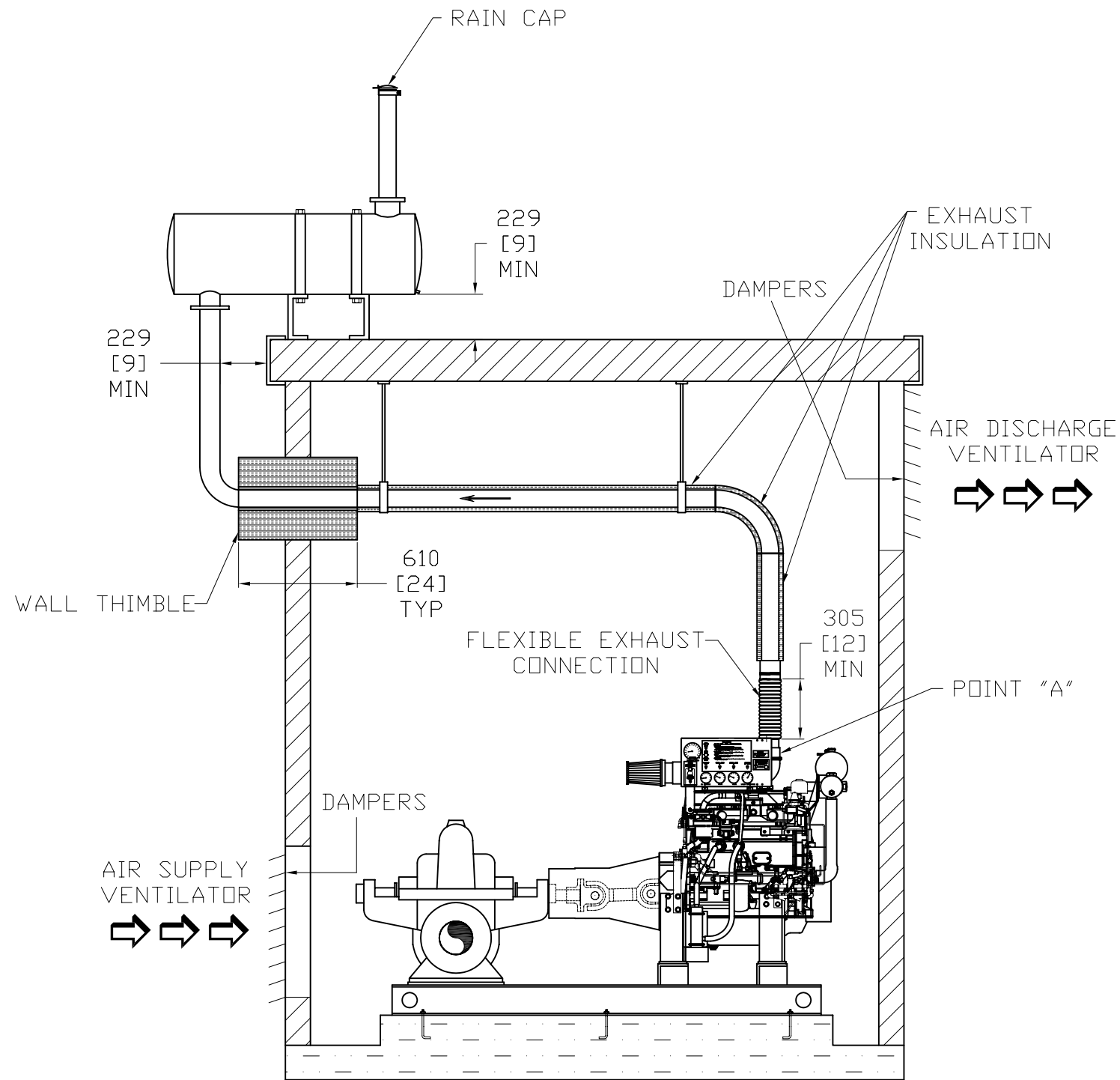
REV	DESCRIPTION	ECN#	DWN	APVD	DATE
A	ISSUED ENGINEERING DRAWING	494	SK	KRW	31AUG04
B	ADDED SUPPLY & DISCHARGE VENTILATORS	494	MAL	KRW	25OCT04
C	CORRECTED DWG GEOMETRY AND ADDED PAD	494	JJW	KRW	15MAY06

INSTALLATION GUIDELINES:

1. REFER TO NFPA-20 2003, SECTION 11.5 FOR ADDITIONAL INFORMATION. NOTE, OTHER PIPING SYSTEMS ARE POSSIBLE. SCHEMATIC SHOWN IS FOR EGRESS THRU WALL, AND SIDE IN, SIDE OUT SILENCER.
2. THE EXHAUST PIPING SYSTEM AND SILENCER SHALL BE SUITABLE FOR THE USE INTENDED, AND THE EXHAUST BACK PRESSURE SHALL NOT EXCEED THE ENGINE MANUFACTURER'S RECOMENDATIONS (SEE WARNING BELOW).
3. THE EXHAUST PIPE SHALL NOT BE ANY SMALLER IN DIAMETER THAN THE ENGINE EXHAUST OUTLET.
4. THE EXHAUST PIPE SHALL BE COVERED WITH HIGH-TEMPERATURE INSULATION OR OTHERWISE GUARDED TO PROTECT PERSONNEL FROM INJURY.
5. THE SYSTEM MUST BE SUPPORTED SUCH THAT THERE IS NO WEIGHT ON THE FLEXIBLE EXHAUST CONNECTION.
6. THE EXHAUST PIPE SHALL BE POSITIONED IN SUCH A WAY AS TO PREVENT EXHAUST GASES FROM RE-ENTERING THE PUMP ROOM.
7. EXHAUST PIPE AND THE POINT OF EGRESS FROM THE PUMP ROOM SHALL BE CONSTRUCTED OR INSULATED SO THAT IT DOES NOT CAUSE A FIRE IGNITION RISK TO THE STRUCTURE.
8. EXHAUST SYSTEM SHALL TERMINATE OUTSIDE THE STRUCTURE AT A POINT WHERE HOT GASES, SPARKS, OR PRODUCTS OF COMBUSTION WILL DISCHARGE TO A SAFE LOCATION.
9. EXHAUST SYSTEM TERMINATIONS SHALL NOT BE DIRECTED TOWARDS COMBUSTIBLE MATERIAL OR STRUCTURES, OR INTO ATMOSPHERES CONTAINING FLAMMABLE GASES, FLAMMABLE VAPORS, OR COMBUSTIBLE DUST.
10. PROPERLY SIZED LOUVERS FOR COMBUSTION AIR AND FOR ROOM COOLING AND VENTILATION SHALL BE PROVIDED. THE TOTAL AIR SUPPLY PATH TO THE PUMP ROOM SHALL NOT RESTRICT THE FLOW OF AIR MORE THAN 5.1mm (.2in) WATER COLUMN. THE TOTAL AIR DISCHARGE PATH FROM THE PUMP ROOM SHALL NOT RESTRICT THE FLOW OF AIR MORE THAN 5.1mm (.2in) WATER COLUMN.

WARNING:

THE BACK PRESSURE TO THE ENGINE EXHAUST CONSIDERABLY INFLUENCES THE POWER OF THE ENGINE AND IT'S THERMAL LOADINGS. EXCESSIVE BACK PRESSURE MEASURED AT THE ENGINE EXHAUST OUTLET CONNECTION (POINT "A") DECREASES POWER, INCREASES THE TEMPERATURE OF THE EXHAUST GAS, PRODUCES SMOKE, INCREASES FUEL CONSUMPTION, SULPHURISES THE INTERNAL COOLING WATER (WITH SUBSEQUENT DAMAGE TO THE LUBRICANTS) AND PRODUCES SERIOUS CONSEQUENCES FOR OTHER ENGINE ELEMENTS (i.e. TURBOCHARGER, etc.).



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	CONTROLLED DRAWING	DRWN S.KORENBLIT	NAME
<small>UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:</small>	DATE 31AUG04	TYPICAL EXHAUST PIPING DETAIL PER NFPA-20 2003	
<small>DECIMAL</small> X ±.15 ±0.06 XX ±0.8 ±0.03 XXX ±0.25 ±0.01	ENGR KRWAULIGMAN	MATERIAL	PART NO. C06918
<small>FRACTIONAL</small> ±1/32 <small>ANGULAR</small> ±5° <small>MACHINED SURFACE</small> 3.2 <small>TEXTURE</small> ✓	SIMILAR TO	USED ON/LAYOUT PART NO.	UNITS MM [INCH]
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