

WORK SHEET:	AREA H - HEADWORKS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H600 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: LEFT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	NO. OF PIECES:	1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	9,152 L/s	ESP:	74.7 Pa (0.3 inch W.C.)
AIR FLOW (HIGH RATE):	7,000 L/s	ESP:	161.9 Pa (0.65 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

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CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H600 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	TOP	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)			
QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8	
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL):	2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION:	ANGLE
SPARES:	COMPLETE FILTER SET		

HEATING SECTION DATA			
TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	740 Kw (2,524,876 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	62 °C
MODULATING BYPASS			
DAMPER:	YES		

ELECTICAL DATA			
UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA	
Applicable Documents:	Specification 23 74 00 Drawing E600 Appendix: Headworks Controls Narrative

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CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H650 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:		NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	9,152 L/s	ESP:	74.7 Pa (0.3 inch W.C.)
AIR FLOW (HIGH RATE):	7,000 L/s	ESP:	161.9 Pa (0.65 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

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CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H650 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	TOP	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	740 Kw (2,524,876 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	62 °C
MODULATING BYPASS			
DAMPER:	YES		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E600 Appendix: Headworks Controls Narrative
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CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H700 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	NO. OF PIECES:	1
MAXIMUM DIMENSIONS:	3200 L x 1700 W x 1350 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	2,980 L/s	ESP:	154.6 Pa (0.62 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	3.73 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kw	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA H - HEADWORKS - MUA SPECIFICATIONS		
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CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	H700 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)			
QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8	
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL):	2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION:	ANGLE
SPARES:	COMPLETE FILER SET		

HEATING SECTION DATA			
TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	223.5 Kw (763,253 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57 °C
MODULATING BYPASS			
DAMPER:	N/A		

ELECTICAL DATA			
UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA	
Applicable Documents:	Specification 23 74 00 Drawing E600 Appendix: Headworks Controls Narrative

WORK SHEET:	AREA H - HEADWORKS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H725 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: LEFT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	NO. OF PIECES:	1
MAXIMUM DIMENSIONS:	3200 L x 1700 W x 1350 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	2,540 L/s	ESP:	81.3 Pa (0.33 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	2.24 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kw	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA H - HEADWORKS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	H725 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	200 Kw (682,294 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	60 °C
MODULATING BYPASS			
DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E600 Appendix: Headworks Controls Narrative
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WORK SHEET:	AREA U - TUNNELS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U600 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	NO. OF PIECES:	4, MAX DIMENSIONS: 1675 x 2425
MAXIMUM DIMENSIONS:	4425 L x 2425 W x 1875 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	16,990 L/s	ESP:	348.7 Pa (1.4 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	29.84 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA U - TUNNELS - MUA SPECIFICATIONS		
DESIGNED BY:	DD/JC	CHECKED BY:	AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE:	11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	U600 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	1,355 Kw (4,622,354 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	61 °C
MODULATING BYPASS			
DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E400 Appendix: Tunnels Controls Narrative
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WORK SHEET:	AREA S - SECONDARY CLARIFIERS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/IU	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	S600 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	2,000 kg	NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	8,490 L/s (18,000 cfm)	ESP:	498 Pa (2.0 inch W.C.)
AIR FLOW (HIGH RATE):	7,547 L/s (16,000 cfm)	ESP:	212 Pa (0.85 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA S - SECONDARY CLARIFIERS - MUA SPECIFICATIONS		
DESIGNED BY:	DD/IU	CHECKED BY:	AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE:	11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	S600 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	BOTTOM	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	633 Kw (2,161,695 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57 °C
MODULATING BYPASS	N/A		
DAMPER:			

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E200 Appendix: Secondary Clarifiers Controls Narrative
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WORK SHEET:	AREA S - SECONDARY CLARIFIERS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/IU	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	S650 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: LEFT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	2,000 kg	NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING: 16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	8,490 L/s (18,000 cfm)	ESP:	498 Pa (2.0 inch W.C.)
AIR FLOW (HIGH RATE):	7,547 L/s (16,000 cfm)	ESP:	212 Pa (0.85 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA S - SECONDARY CLARIFIERS - MUA SPECIFICATIONS		
DESIGNED BY:	DD/IU	CHECKED BY:	AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE:	11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	S650 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	BOTTOM	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPE:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	633 Kw (2,161,695 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57 °C
MODULATING BYPASS DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E200 Appendix: Secondary Clarifiers Controls Narrative
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WORK SHEET:	AREA U - MECHANICAL BAY - MUA SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U610 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR HE, ICE BMA OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	885 kg	NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3150 L x 1575 W x 1050 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	2,880 L/s	ESP:	62.5 Pa (0.25 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	3.75 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kw	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA U - MECHANICAL BAY - MUA SPECIFICATIONS		
DESIGNED BY:	DD/JC	CHECKED BY:	AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE:	11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	U610 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPE:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT:	217 Kw (740,000 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57.6 °C
MODULATING BYPASS			
DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E500 Appendix: Utilities Controls Narrative
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WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS		
DESIGNED BY:	DD/JC	CHECKED BY:	AG
DESIGN DATE:	2010-06-10	CHECK DATE:	2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	U605
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GENERAL & CABINET

UNIT TYPE:	INDIRECT FIRED, PACKAGED, AIR HANDLER	UNIT MODEL NO.:	ENG AIR DJE, ICE GIDMH OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS:	RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	2,676 kg	NO. OF PIECES:	3
MAXIMUM DIMENSIONS:	3575 L x 2500 W x 1625 H , WIDTH INCLUDES AN ALLOWANCE FOR THE BURNER SECTION		
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING:	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)		

SUPPLY AIR DATA

AIR FLOW (NORMAL):	7,080 L/s	ESP:	142 Pa (0.57 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	11.19 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS		
DESIGNED BY:	DD/JC	CHECKED BY:	AG
DESIGN DATE:	2010-06-10	CHECK DATE:	2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	U605
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT		
RETURN AIR	TOP	RETURN AIR INTAKE: PARALLEL BLADE, SS-CONSTRUCTION, LOW-LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	MODULATING
OUTSIDE AIR	REAR HORIZONTAL	OUTSIDE AIR INTAKE: PARALLEL BLADE, SS-CONSTRUCTION, LOW-LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	MODULATING
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPE:	50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8		
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL):	2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION:	ANGLE
SPARES:	COMPLETE FILTER SET		

MIXED AIR SECTION

BAFFLING:	NO	ACCESS SIDE:	RIGHT
RELIEF:	NO	RELIEF AIR DAMPER:	NONE
OUTDOOR AIR DAMPER:	MOTORIZED. MODULATING	RETURN AIR DAMPER:	MOTORIZED, MODULATING
OUTDOOR AIR REQUIREMENT:	29%		

HEATING SECTION DATA

TYPE:	INDIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS	HEAT INPUT:	263.8 kW (900,000 Btuh)
INLET PRESSURE:	249 Pa	HEAT OUTPUT:	215 kW (733,610 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	25 °C
MODULATING BYPASS DAMPER:	N/A		

FIXED PLATE HEAT EXCHANGER

PRIMARY MATERIAL:	STAINLESS STEEL
SECONDARY MATERIAL:	STAINLESS STEEL
DRAIN PAN:	STAINLESS STEEL

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG
DESIGN DATE:	2010-06-10	CHECK DATE: 2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U605
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CONTROL DATA	
Applicable Documents:	Specification 23 74 00 Drawing E500 Appendix: Utilities Controls Narrative

WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG
DESIGN DATE:	2010-06-10	CHECK DATE: 2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U640 - REV1
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GENERAL & CABINET

UNIT TYPE:	INDIRECT FIRED, PACKAGED, AIR HANDLER	UNIT MODEL NO.:	ENG AIR DJE, ICE GIDMH OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS:	LEFT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	1,497 kg	NO. OF PIECES:	1
MAXIMUM DIMENSIONS:	2625 L x 2000 W x 1200 H , WIDTH INCLUDES AN ALLOWANCE FOR THE BURNER SECTION		
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	CASING:	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)		

SUPPLY AIR DATA

AIR FLOW (NORMAL):	4,267 L/s	ESP:	597.8 Pa (2.4 inch W.C.)
AIR FLOW (HIGH RATE):	N/A	ESP:	N/A
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	11.19 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG
DESIGN DATE:	2010-06-10	CHECK DATE: 2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U640 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	FRONT		
RETURN AIR	TOP	RETURN AIR INTAKE: PARALLEL BLADE, SS-CONSTRUCTION, LOW-LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	MODULATING
OUTSIDE AIR	REAR HORIZONTAL	OUTSIDE AIR INTAKE: PARALLEL BLADE, SS-CONSTRUCTION, LOW-LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	MODULATING
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPE:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

MIXED AIR SECTION

BAFFLING:	NO	ACCESS SIDE:	LEFT
RELIEF:	NO	RELIEF AIR DAMPER:	NONE
OUTDOOR AIR DAMPER:	MOTORIZED. MODULATING	RETURN AIR DAMPER:	MOTORIZED, MODULATING
OUTDOOR AIR REQUIREMENT:	7%		

HEATING SECTION DATA

TYPE:	INDIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS	HEAT INPUT:	106 kW (361, 688 Btuh)
INLET PRESSURE:	249 Pa	HEAT OUTPUT:	84.8 Kw (289,350 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	17 °C
MODULATING BYPASS DAMPER:	N/A		

FIXED PLATE HEAT EXCHANGER

PRIMARY MATERIAL:	STAINLESS STEEL
SECONDARY MATERIAL:	STAINLESS STEEL
DRAIN PAN:	STAINLESS STEEL

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

WORK SHEET:	AREA U - MECHANICAL BAY - AHU SPECIFICATIONS	
DESIGNED BY:	DD/JC	CHECKED BY: AG
DESIGN DATE:	2010-06-10	CHECK DATE: 2010-11-30
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	U640 - REV1
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CONTROL DATA

Applicable Documents:	Specification 23 74 00
	Drawing E500
	Appendix: Utilities Controls
	Narrative

WORK SHEET:	AREA P - PRIMARY CLARIFIERS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/IU	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	P600 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR DJE, ICE GIDMH OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: LEFT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	2,000 kg	NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	8,490 L/s (18,000 cfm)	ESP: 224.2 Pa (0.9 inch W.C.)
AIR FLOW (HIGH RATE):	7,547 L/s (16,000 cfm)	ESP: 485.7 Pa (1.95 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)	
FAN SIZE:		QTY: 1
FAN TYPE:	BI OR AIRFOIL	RPM:
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP: Pa
MAX. SOUND POWER LEVEL:	dba	
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.: STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE: CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE: HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE: BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ALIGNMENT ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15	

WORK SHEET:	AREA P - PRIMARY CLARIFIERS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/IU	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	P600 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	TOP	SUPPLY AIR DISCHARGE INTEGRAL TO UNIT: PARALLEL BLADE, SS-CONSTRUCTION, LOW-LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80AF3 DAMPER, GREENHECK HCD230 DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPE:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPELTE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT, kW:	633 Kw (2,161,695 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57 °C
MODULATING BYPASS DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E100 Appendix: Primary Clarifiers Controls Narrative
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WORK SHEET:	AREA P - PRIMARY CLARIFIERS - MUA SPECIFICATIONS	
DESIGNED BY:	DD/IU	CHECKED BY: AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE: 11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT	
JOB NAME:	WEWPCC HVAC REPLACEMENT	
JOB NO.:	CW-10-M660-1	

TAG:	P650 - REV1
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GENERAL & CABINET

UNIT TYPE:	DIRECT FIRED, PACKAGED, MAKE-UP UNIT MODEL NO.: AIR UNIT	ENG AIR DJE, ICE GIDMH OR APPROVED EQUAL IN ACCORDANCE WITH B6
MOUNTING:	INDOOR BASE MOUNTED (Heated Space)	SERVICE ACCESS DOORS: RIGHT HAND, SERVICE DOORS PIANO HINGED c/w 1/4 TURN POSITIVE LOCK CLOSING HARDWARE BOTH SIDES, FULLY INSULATED AND LINED NEOPRENE GASKETTING
APPROX. SHIPPING WEIGHT:	2,000 kg	NO. OF PIECES: 1
MAXIMUM DIMENSIONS:	3725 L x 2350 W x 1900 H , WIDTH INCLUDES AN ALLOWANCE FOR THE CONTROL PANEL	
INSULATION:	25 mm, 24 kg/m ³ , PLUS UNDERSIDE INSULATION C/W SOLID 304 SS LINER THROUGHOUT	16 GAUGE SATIN COAT GALVANIZED STEEL, FORMED CONSTRUCTION, REINFORCED, BRACED TO MANUF'S STD C/W LIFTING LUGS, ELECTROSTATICALLY APPLIED ENAMEL PAINT COATING ON ALL EXPOSED SURFACES
APPROVALS:	CSA 3.7, CETL, ETL AND REQUIREMENTS OF LOCAL AHJ (DOL MECHANICAL & ENGINEERING BRANCH)	

SUPPLY AIR DATA

AIR FLOW (NORMAL):	8,490 L/s (18,000 cfm)	ESP:	224.2 Pa (0.9 inch W.C.)
AIR FLOW (HIGH RATE):	7,547 L/s (16,000 cfm)	ESP:	485.7 Pa (1.95 inch W.C.)
FAN RATING TO AMCA 210:	CLASS 2 (minimum)		
FAN SIZE:		QTY:	1
FAN TYPE:	BI OR AIRFOIL	RPM:	
MOUNTING:	FREE STANDING WITH RIS VIB ISOLATION	TSP:	Pa
MAX. SOUND POWER LEVEL:	dba		
HOUSING CONST.:	STEEL SATIN COAT	WHEEL CONST.:	STEEL
BEARING TYPE:	PILLOW BLOCK WITH EXTENDED SS TUBING TO GREASING NIPPLES ACCESSED FROM MANIFOLD ON EXTERIOR OF UNIT CABINET	SHAFT TYPE:	CARBON STEEL MINIMUM C1045 WITH RUST INHIBITOR COATING
MOTOR SIZE:	14.92 kW	TYPE:	HIGH EFFICIENCY, TEFC, 1800 rpm
BHP:	kW	DRIVE:	BELT DRIVE, FAN & MOTOR ON PAINTED STEEL, FABRICATED BASE C/W ADJUSTABLE JACKING BOLTS FOR TENSION ADJUSTMENT, SF OF DRIVE 1.5
MOTOR SERVICE FACTOR:	1.15		

WORK SHEET:	AREA P - PRIMARY CLARIFIERS - MUA SPECIFICATIONS		
DESIGNED BY:	DD/IU	CHECKED BY:	AG, REV1: JC/DD
DESIGN DATE:	2010-06-10	CHECK DATE:	11/30/2010, REV1: 01/24/2011
CUSTOMER:	CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT		
JOB NAME:	WEWPCC HVAC REPLACEMENT		
JOB NO.:	CW-10-M660-1		

TAG:	P650 - REV1
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AIR OPENINGS	LOCATION	DAMPER TYPE	OPERATION
SUPPLY AIR	TOP	SUPPLY AIR DISCHARGE: PARALLEL BLADE, SS- CONSTRUCTION, LOW- LEAKAGE, AIR FOIL BLADES, C/W DIRECT MOUNT ELECTRIC ACTUATOR, POSITION OPEN & CLOSED LIMIT SWITCHES ; STD OF ACCEPTANCE; RUSKIN CD80 DAMPER, GREENHECK HCD DAMPER, HONEYWELL MS ACTUATOR	OPEN/CLOSED
RETURN AIR	N/A	N/A	
OUTSIDE AIR	REAR HORIZONTAL	N/A	
EXHAUST AIR	N/A	N/A	

FILTER DATA (FILTERS MOUNTED IN METAL FRAMES)

QTY/SIZE/TYPER:		50-mm, THROWAWAY, MERV 8, AAF PerfectPleat HC M8
TOTAL GROSS AREA:	m ²	FACE VELOCITY (MAX/ACTUAL): 2.23 m/s (MAX)/ m/s (ACT)
FRAME:	STAINLESS STEEL METAL FRAME	ORIENTATION: ANGLE
SPARES:	COMPLETE FILTER SET	

HEATING SECTION DATA

TYPE:	DIRECT-FIRED	BURNER TURNDOWN:	15:1 MINIMUM
GAS SUPPLY:	NATURAL GAS		
INLET PRESSURE:	249 Pa	HEAT INPUT, kW:	633 Kw (2,161,695 Btuh)
FIELD CONNECTION SIZE:	mm	TEMPERATURE RISE:	57 °C
MODULATING BYPASS DAMPER:	N/A		

ELECTICAL DATA

UNIT POWER SUPPLY:	575 VOLTS 3 PHASE 60 HZ	CONTROL CIRCUIT:	AMPS
SUPPLY MOTOR F.L.A.:	AMPS	MAX. FUSE (D.E.):	AMPS
MAIN FEEDER AMPACITY:	AMPS	MAX. BREAKER:	AMPS
DISCONNECT SWITCH:	NON FUSED - BY OTHERS		

CONTROL DATA

Applicable Documents:	Specification 23 74 00 Drawing E100 Appendix: Primary Clarifiers Controls Narrative
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