



AIR MOVEMENT SERVICES LTD.

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BETTER AIR MANUFACTURING

AIRFLOW TESTING & BALANCING

SEPTEMBER 2024

FILE 26266

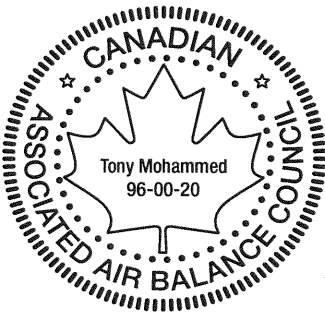
ARCHITECT :
ENGINEER :
GENERAL :
MECHANICAL : BETTER AIR MANUFACTURING
VENTILATION :

Certification

This is to certify that Air Movement Services Ltd. has balanced the systems described herein to their optimum performance capabilities. The testing and balancing has been performed in accordance with standards published by the Associated Air Balance Council and the results are herein recorded.

Date _____ SEPTEMBER 2024 _____

Associated Air Balance Council Certification Number 96-00-20



Tony Mohammed

Approved by



BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 2)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITHOUT SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 1317 FPM
1317 X 41.17 = 54,221 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 99 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	54,221	
FAN SPEED	DIRECT DRIVE	60 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	3.4/3.3/3.4	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.19"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
AMCA FAN APPLICATION MANUAL NO. 202



BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 3)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITHOUT SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 1161 FPM
1161 X 41.17 = 47,798 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 87 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	47,798	
FAN SPEED	DIRECT DRIVE	54 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	3.1/3.0/3.0	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.13"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
AMCA FAN APPLICATION MANUAL NO. 202



BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 4)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITHOUT SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 1051 FPM
1051 X 41.17 = 43,270 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS				
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 79 % OF SPECIFIED				
SIZE FW-72EC						
VOLUME	55,000 CFM	43,270				
FAN SPEED	DIRECT DRIVE	51 HERTZ				
STATIC PRESSURE	-	-				
AMPERAGE	4.6	2.2/2.1/2.2				
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603				
FILTER PRESSURE DROP		-				
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN	<input type="checkbox"/> 1/4	<input type="checkbox"/> 1/2	<input type="checkbox"/> 3/4	<input type="checkbox"/> MAX

SYSTEM STATIC PRESSURES

	INLET: -0.11"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
AMCA FAN APPLICATION MANUAL NO. 202



BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 5)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITHOUT SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 939 FPM
939 X 41.17 = 38,659 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 70 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	38,659	
FAN SPEED	DIRECT DRIVE	48 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	1.8/1.9/1.8	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.09"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
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BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 6)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITHOUT SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 754 FPM
754 X 41.17 = 31,042 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 56 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	31,042	
FAN SPEED	DIRECT DRIVE	42 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	1.07/1.06/1.07	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.05"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
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BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 7)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITH SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 1210 FPM
1210 X 41.17 = 49,816 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 91 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	49,816	
FAN SPEED	DIRECT DRIVE	60 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	4.0/3.9/4.0	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.22"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
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BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 8)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITH SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 1009 FPM
1009 X 41.17 = 41,541 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 76 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	41,541	
FAN SPEED	DIRECT DRIVE	54 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	2.8/2.9/2.8	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.19"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
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BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 9)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITH SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 871 FPM
871 X 41.17 = 35,859 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 65 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	35,859	
FAN SPEED	DIRECT DRIVE	51 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	2.3/2.2/2.3	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.16"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

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BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 10)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITH SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 797 FPM
797 X 41.17 = 32,812 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS	
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 60 % OF SPECIFIED	
SIZE FW-72EC			
VOLUME	55,000 CFM	32,812	
FAN SPEED	DIRECT DRIVE	48 HERTZ	
STATIC PRESSURE	-	-	
AMPERAGE	4.6	1.8/1.9/1.8	
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603	
FILTER PRESSURE DROP		-	
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/> MIN <input type="checkbox"/> 1/4 <input type="checkbox"/> 1/2 <input type="checkbox"/> 3/4 <input type="checkbox"/> MAX	

SYSTEM STATIC PRESSURES

	INLET: -0.14"WG	OUTLET: UNSTABLE
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DRIVE INFORMATION

	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES
FAN	-	-	-	-
MOTOR	-	-	-	-

"FIELD STATIC PRESSURE MEASUREMENTS RARELY CORRESPOND WITH LABORATORY STATIC PRESSURE MEASUREMENTS UNLESS THE FAN INLET AND OUTLET CONDITIONS ARE EXACTLY THE SAME AS THE INLET AND OUTLET CONDITIONS IN THE LABORATORY"
AMCA FAN APPLICATION MANUAL NO. 202



AIR MOVEMENT SERVICES LTD.
51-B SPEERS ROAD, WINNIPEG, MANITOBA R2J 1M2

EXHAUST FAN TEST SHEET

BUILDING BETTER AIR MANUFACTURING - MACGREGOR MANITOBA

SYSTEM TEST SYSTEM (TEST 11)

FAN CAPACITY ESTABLISHED:

- MAIN DUCT PITOT TUBE TRAVERSE
- SUM OF PITOT TUBE TRAVERSES
- SUM OF READINGS AT INTAKE(S)

LARGE CONE WITH SHUTTER
77 X 77 DUCT; 41.17 SQ. FT.
AVERAGE VELOCITY: 676 FPM
676 X 41.17 = 27,831 CFM

DESIGN AND MANUFACTURER'S DATA		FINAL OPERATING CONDITIONS				
FAN MAKE BETTER AIR MANUFACTURING		SYSTEM 51 % OF SPECIFIED				
SIZE FW-72EC						
VOLUME	55,000 CFM	27,831				
FAN SPEED	DIRECT DRIVE	42 HERTZ				
STATIC PRESSURE	-	-				
AMPERAGE	4.6	1.1/1.0/1.3				
POWER 4.0 HP VOLTAGE	575 - 3/60	603/602/603				
FILTER PRESSURE DROP		-				
PULLEY POSITION	DIRECT DRIVE	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
SYSTEM STATIC PRESSURES						
INLET:		-0.11"WG	OUTLET:		UNSTABLE	
DRIVE INFORMATION						
	DRIVE SIZE & GROOVES	SHAFT SIZE	BELT SIZE	C TO C OF SHEAVES		
FAN	-	-	-	-		
MOTOR	-	-	-	-		

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AMCA FAN APPLICATION MANUAL NO. 202

AABC

12/SEP/2024
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