

SPECIFICATION SHEET

NFM / NFF FIXED CURVED GLASS GRAVITY SERVICE MERCHANDISERS NFD FIXED CURVED GLASS BLOWER SERVICE MERCHANDISERS NFL FIXED CURVED GLASS LOW TEMP BLOWER SERVICE MERCHANDISERS

Refrigeration Data:

MODEL	CASE LENGTH	CASE USAGE	CAPACITY (BTUH / FT)		EVAPORATOR (°F)	UNIT SIZING (°F)	DISCHARGE AIR		AVG. REF. CHARGE (LBS/FT)
			PARALLEL	CONVENTIONAL			TEMPERATURE (°F)	VELOCITY (FPM)	
NFM	ALL	Meat / Fish	210*	315*	+13**	+11	N/A	N/A	0.70
NFF	ALL	Fish (Iced)	178*	266*	+20**	+18	N/A	N/A	0.39
NFD	ALL	Deli	324*	486*	+15**	+13	30	325***	0.53
NFL	ALL	Low Temp	264*	273*	-15**	-18	-5	325***	0.27

* Capacity data listed for cases with 1 row of T-8 top lights. ADD 23 BTUH/FT for each lighted mezzanine shelf.
For sizing all refrigeration equipment other than TYLER, use conventional BTUH values.

** Evaporator temperature is based on the saturated pressure leaving the case.

*** Air velocity measured 1 hour after defrost at the vertical part of the Rear Duct.

FOR SPECIFIC COMPRESSOR SIZING INFORMATION, REFER TO TYLER APPLICATIONS FOR RACK SYSTEM COMPRESSORS AND/OR THE COMPRESSOR MANUFACTURERS FOR SINGLE COMPRESSORS. FOR LINE SIZING INFORMATION, REFER TO THE MISCELLANEOUS SECTION "BUFF" IN THE TYLER SPECIFICATION GUIDE.

Electrical Data:

Fans and Heaters (120 and 208 Volt)

MODEL	CASE LENGTH	FANS / CASE	TOTAL STANDARD FANS		TOTAL ECM FANS		ANTI-SWEAT HEATER (120 V)		HEATED GLASS (120 V)		DEFROST HEATER (208 V)	
			AMPS	WATTS	AMPS	WATTS	RR LWR DR FRAME AMPS	WATTS	AMPS	WATTS	AMPS	WATTS
NFM	4'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFM / NFF	6'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFM / NFF	8'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFM / NFF	12'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFD	4'	1	0.34	30.2	0.22	11.0	N/A	N/A	N/A	N/A	N/A	N/A
NFD	6'	2	0.68	60.4	0.44	22.0	N/A	N/A	N/A	N/A	N/A	N/A
NFD	8'	2	0.68	60.4	0.44	22.0	N/A	N/A	N/A	N/A	N/A	N/A
NFD	12'	3	1.02	90.6	0.66	33.0	N/A	N/A	N/A	N/A	N/A	N/A
NFL	6'	2	0.68	60.4	0.44	22.0	0.68	82.0	1.25	150.0	6.50	1,352
NFL	8'	2	0.68	60.4	0.44	22.0	0.68	82.0	1.25	150.0	6.90	1,435
NFL	12'	3	1.02	90.6	0.66	33.0	0.68	82.0	2.50	300.0	10.30	2,142

Heaters (208 Volt)(NFL Cases Only)

208 VOLT DEFROST (AMPS)											
FT	6'	8'	12'	16'	20'	24'	28'	32'	36'	40'	44'
1 Phase	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	7/8"

T8 Lighting with Electronic Ballasts (120 Volt)

MODEL	CASE LENGTH	CANOPY LIGHTS				SHELF LIGHTS - PER ROW				MAXIMUM LIGHTING*	
		AMPS		WATTS		AMPS		WATTS		AMPS (3 or 2 ROWS)	WATTS (3 or 2 ROWS)
		1 ROW	2 ROW	1 ROW	2 ROW	1 ROW	2 ROWS	1 ROW	2 ROWS		
NF(M/D)	4'	0.35	N/A	42.0	N/A	0.35	0.50	42.0	60.0	0.85*	102.0*
NF(M/F/D)	6'	0.40	N/A	48.0	N/A	0.40	0.80	48.0	96.0	1.20*	144.0*
NF(M/F/D)	8'	0.50	N/A	60.0	N/A	0.50	1.00	60.0	120.0	1.50*	180.0*
NF(M/F/D)	12'	0.70	N/A	84.0	N/A	0.70	1.40	84.0	168.0	2.10*	252.0*
NFL	6'	0.40	0.75	48.0	90.0	N/A	N/A	N/A	N/A	1.20**	144.0**
NFL	8'	0.50	0.95	60.0	114.0	N/A	N/A	N/A	N/A	1.50**	180.0**
NFL	12'	0.70	1.40	84.0	168.0	N/A	N/A	N/A	N/A	2.10**	252.0**

* For cases with 1 row of canopy lights and 2 rows of shelf lights.

** For cases with 2 rows of canopy lights and no shelf lights.

NSF CERTIFIED to meet ANSI/NSF - 7.

CASE BTUH REQUIREMENTS are calculated to produce approximately the indicated performance with absolute maximum operating ambient limits of 75°F & 55RH.

The information contained herein is based on technical analysis and/or tests performed in a controlled lab environment that are consistent with industry practices, and is intended as a reference for system sizing and configuration purposes only and for use by persons having technical skill at their own discretion and risk. Conditions of use are outside of Tyler's control and we do not assume and hereby disclaim any liability for results obtained or damages incurred through application of or reliance on the data presented, including but not limited to specific energy consumption with any particular model or installed application. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Defrost Data:

DEFROST TYPE	DEFROSTS PER DAY	DURATION TIME (MIN)	TERMINATION TEMP. (°F)	BACKUP PRESSURE SETTINGS **		EPR SETTINGS ***		DEFROST WATER (LB / FT / DAY)
				CUT IN	CUT OUT	R22 (PSIG)	R404A (PSIG)	
TIME OFF - NFM / NFF	1	110	N/A	34# @ R22	24# @ R22	36	47	N/A
TIME OFF - NFD	1	46	N/A					
ELECTRIC - NFL	1	46	50	20# @ R404A	10# @ R404A	13	21	N/A
HOT GAS - NFL	2	17-20	55*					

* If an electronic sensor is used for termination, it should be set at 70°F termination temperature. The sensor must be located in the same location as the defrost termination klaxon for that defrost type.

** Used with electronic thermostat and EPR control.

*** Set EPR to give this pressure at the case.

CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH SIZING FOR CASE LINE-UPS												
MODEL	4'	6'	8'	12'	16'	20'	24'	28'	32'	36'	40'	44'
NFM - R22	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	7/8"
NFF - R22	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"
NFD - R22	3/8"	3/8"	3/8"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"
NFL - R404A	N/A	1/2"	1/2"	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1-1/8"	1-1/8"

CONVENIENCE OUTLET CIRCUIT: One single convenience outlet is on the back of the 4' and 6' cases and two single convenience outlets are on the back of the 8' and 12' cases. Plan suitable 15A circuits for these 120V outlets.

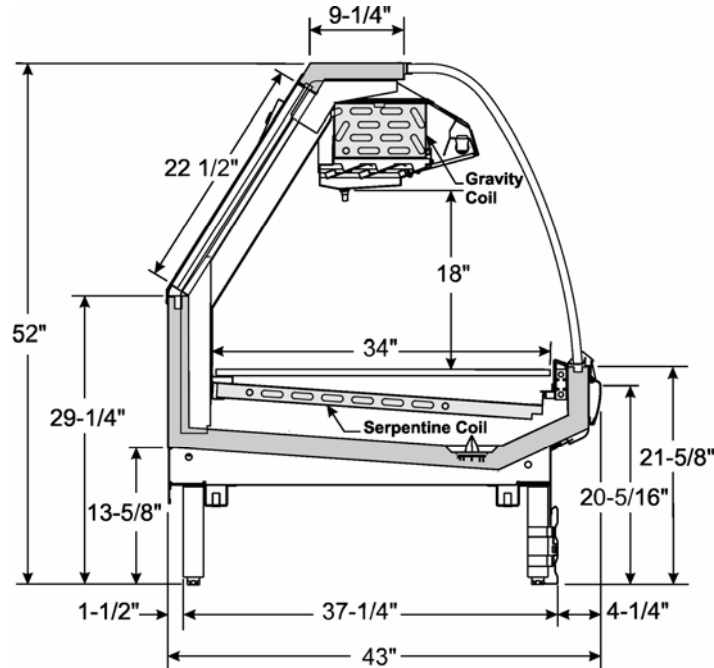
A suitably sized Evaporator Pressure Regulator should be installed on each system to aid in temperature control. Set the EPR for 36 PSIG (R22) on NFM, NFF or NFD cases. Set the EPR for 21 PSIG (R404A) on NFL cases.

Shelves not recommended in gravity coil cases since they disrupt airflow and compromise performance. Blower style cases may use shelving.

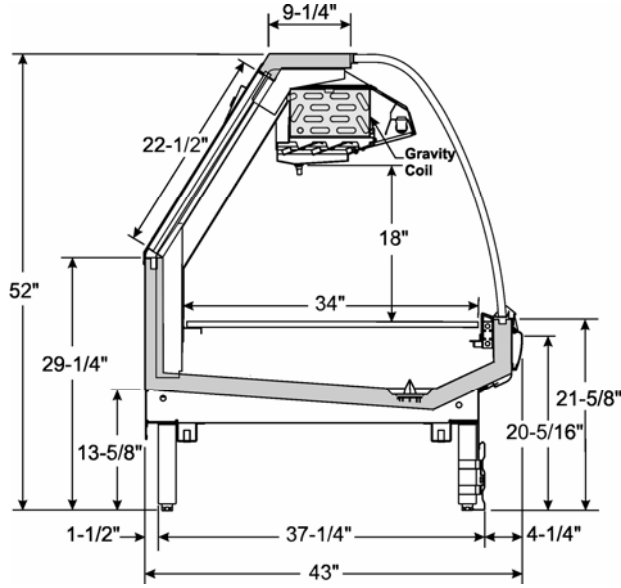
Pressure control settings shown in the above table are for backup purposes only. The actual temperature control should be set by the thermostat.

NFM setting for this case = CUT IN @ 32°F and CUT OUT @ 22°F. NFF setting for this case = CUT IN @ 34°F and CUT OUT @ 33°F. NFD setting for this case = CUT IN @ 31°F and CUT OUT @ 24°F.

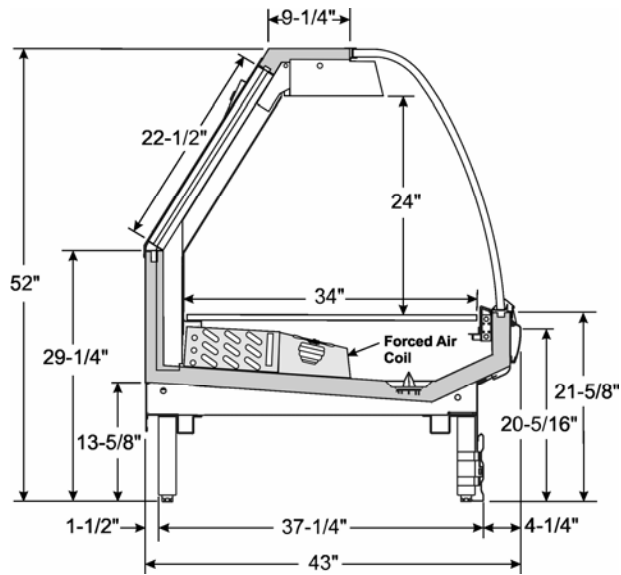
NFM CROSS SECTION



NFF CROSS SECTION



NFD / NFL CROSS SECTION



NFM/NFF/NFD/NFL FLOOR PLAN

