



**60 Arena Blvd, Starbuck, Manitoba, R0G 2P0**

To whom it may concern.

Starbuck Recreation changed from a freon ice plant to a skid mounted ammonia ice plant in September 2016. The old freon ice plant was in excess of 25 years old and had become unserviceable.

Our facility is only open September to March each year, we have 3 curling sheets and a hockey arena. With the upgrade we have an extra 6 pumps due to adding heat reclaim to the system. During the design stage it was not expected that we would see a reduction in electricity but hoped we would sustain the same level with the compressors being more efficient and having to run 6 extra pumps.

We are now coming to the end of our second season with the new ice plant and this year again our Hydro usage is lower than the previous year but our bookings have increased. Using the 6000E Cimco Automation software allows us to use setbacks and monitor the efficiency of the ice plant and not waste energy which helps a small rural community. Being able to increase the temperature of the ice at down times and have the ability to schedule ice times has been a great benefit for Starbuck.

Starbuck has had an major improvement in the facility from harder ice to better air quality and a major reduction in humidity due to water now freezing instantly. We have always been known as the coldest rink in Manitoba with the barn being around -2c for most of the season but now with the heat reclaim we are +4 for most of the season, a huge difference and at little running cost.

One of the biggest improvements is with the curling ice. We use the same system for curling and hockey, so when we flood the hockey ice warm brine goes to the curling ice too giving the curlers changing ice conditions.

I discussed this matter with our excellent account manager who listened to my concerns and then worked out a system for us that allows us to still share the brine but circulate the brine constantly during games controlled by the 6000E, other curling clubs are taking an interest in this method.

The automation software has been excellent in alarming us of system issues and being able to control all features from a remote location and giving Cimco the ability of fixing issues without the need to attend which saves us travel costs and time.

Starbuck Recreation are very happy with the new ice plant from planning to installation and our continued relationship with Cimco.

Regards



Lee Kiely  
Facility Manager

### **Compressor hours**

#### **Old Plant**

2800 to 3400 hours per compressor.

#### **New Plant**

2016/2017 Season 1600 hours per compressor

2017/2018 Season 1400 hours per compressor

Current Year						Previous Year					
Date Issued	Energy Charges	Energy Consumption	Days	Avg. Use per Day	Avg. Temp.	Date Issued	Energy Charges	Energy Consumption	Days	Avg. Use per Day	Avg. Temp.
2018-03-08	\$4,664.63	48,960	32	1,530	-13.5	2017-03-08	\$4,436.09	52,020	34	1,530	-9.2
2018-02-08	\$4,566.12	46,980	29	1,620	-14.1	2017-02-08	\$3,982.86	40,680	27	1,507	-11.7
2018-01-09	\$3,971.41	36,540	29	1,260	-17.9	2017-01-10	\$4,034.54	40,680	32	1,271	-16.4
2017-12-08	\$4,362.64	45,180	33	1,369	-6.7	2016-12-08	\$5,051.97	61,740	31	1,992	2.1
2017-11-08	\$4,577.76	49,500	30	1,650	5.1	2016-11-08	\$5,367.35	68,040	30	2,268	4.6
2017-10-10	\$4,874.19	56,520	28	2,019	13.7	2016-10-11	\$4,781.28	58,320	29	2,011	13.9
2017-09-11	\$840.40	8,280	34	244	17.3	2016-09-09	\$1,173.61	12,600	29	434	18.5
2017-08-10	\$509.96	5,040	28	180	19.0	2016-08-09	\$1,098.80	11,880	33	360	19.7
2017-07-11	\$508.12	5,040	31	163	16.4	2016-07-11	\$589.94	6,120	33	185	17.8
2017-06-08	\$542.01	5,400	33	164	12.9	2016-06-08	\$606.32	6,300	29	217	14.1
2017-05-08	\$626.72	6,300	29	217	5.5	2016-05-09	\$737.45	7,740	30	258	6.3
2017-04-09	\$3,219.63	35,100	27	1,300	-2.7	2016-04-08	\$3,408.52	39,240	33	1,189	-1.1
<b>Totals</b>	<b>\$33,263.59</b>	<b>348,840</b>	<b>363</b>	<b>961</b>	<b>2.9</b>	<b>Totals</b>	<b>\$35,266.73</b>	<b>405,360</b>	<b>370</b>	<b>1,096</b>	<b>4.9</b>