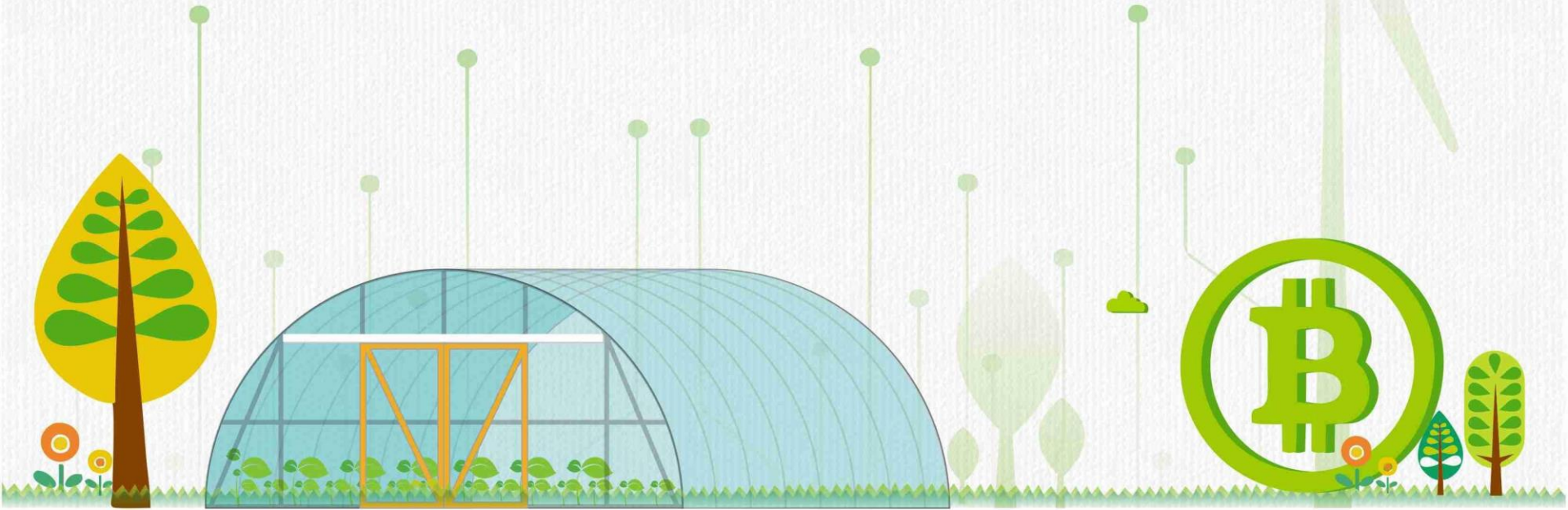
MinerMart.ca

INTEGRATED ENERGY &MINING SYSTEMS

ENTER A NEW ERA OF ZERO CARBON EMISSION MINING



CONTENTS

Heat°Core

Introduction

Comprehensive solutions

Smart control system

Mining boilers

Cases

MinerMart.ca

INTRODUCTION

01

MinerMart.ca

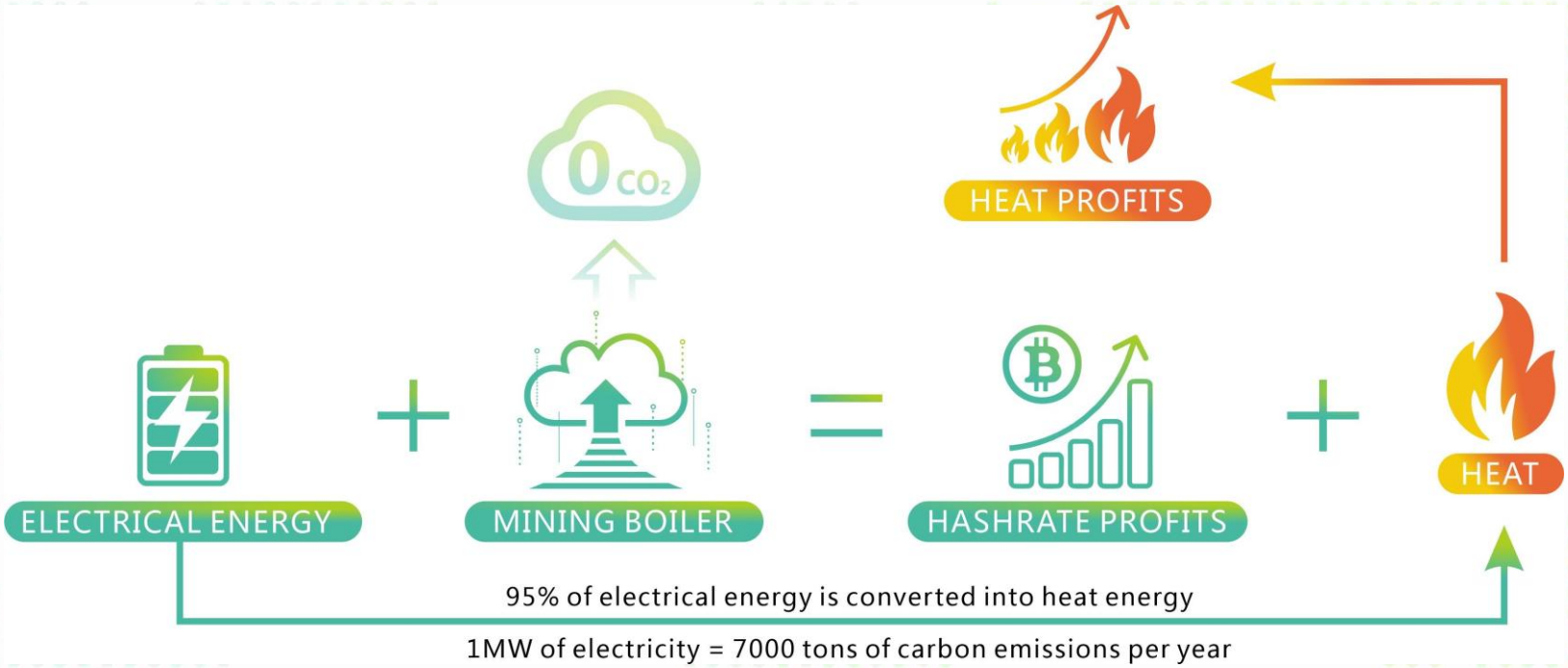
COMPANY PROFILE

Minermart provides comprehensive solutions for both upstream and downstream mining system operations, as well as being an integrated energy system service provider and operator.

Our company is committed to providing overall solutions for integrated energy & mining systems. By integrating electrical energy, thermal energy and mining, our system effectively improve energy efficiency and reduce carbon emissions.

Minermart is MicroBT's Strategic Partner, and we cooperate on the whole cooling system design and development.

MinerMart.ca



COMPANY MISSIONS

Empowering traditiona industries and bui ding zero carbon emission mining

MinerMart.ca

ELECTRICITY

FUNCTIONS

- HEATING STATION
- MINING FARM
- MINERS

PRODUCTS

- HOUSEHOLD TYPE
- DISTRIBUTED TYPE
- CENTRALIZED TYPE

INTEGRATED ENERGY&MINING SYSTEMS

GOALS:

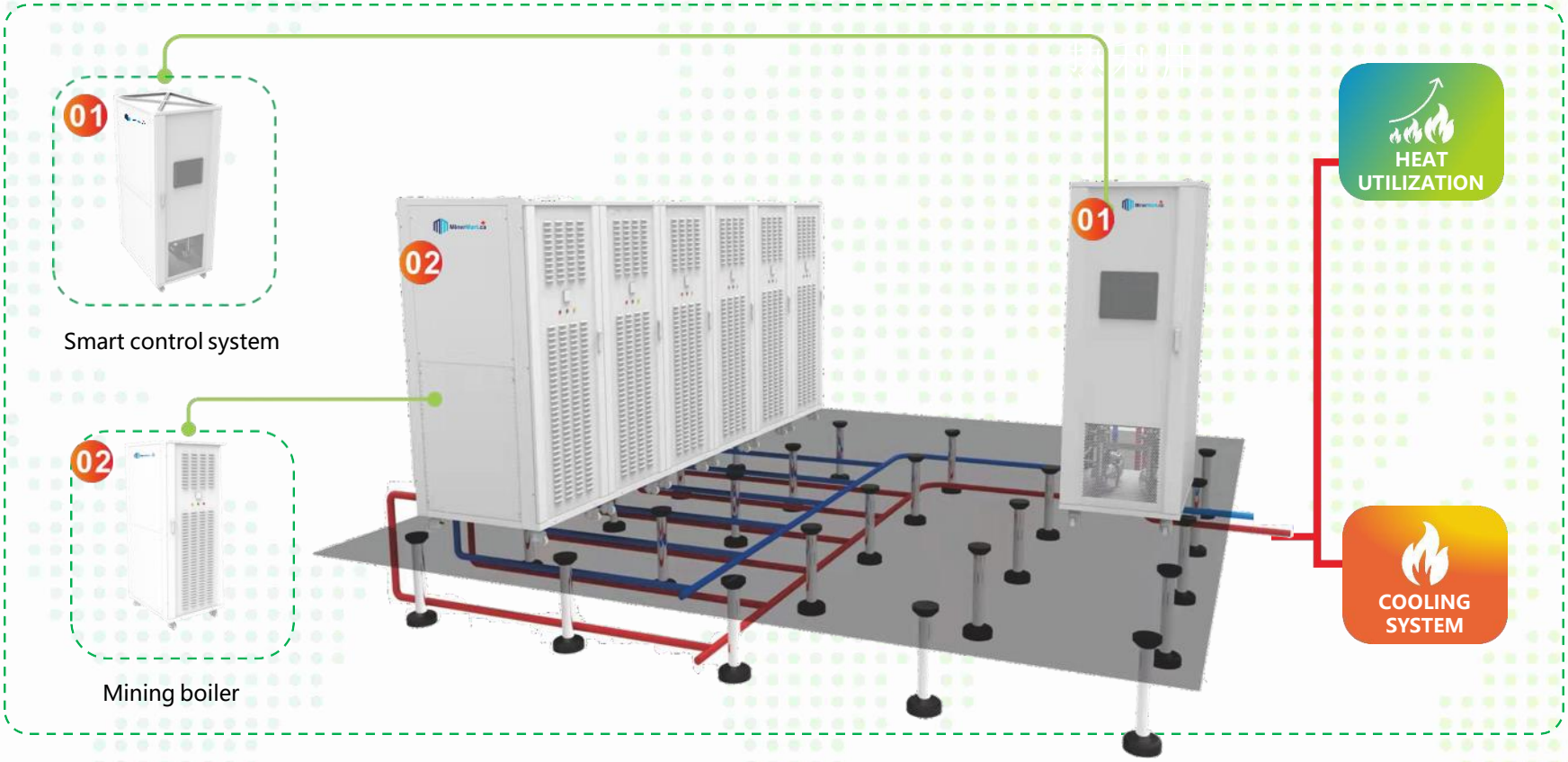
ENVIRONMENTAL FRIENDLY

SOCIAL FRIENDLY

ELECTRICAL GRID FRIENDLY

MinerMart.ca

Integrated energy&mining systems



This is an innovative system, which is not only a hydro cooling miner to provide hashrate (thermal efficiency > 95%), but also a boiler system to provide heat.

Technical solutions

CONCEPTS

This system adopts the **Cold Plate Water Cooling technology**, which uses water as the heat transfer medium to flow in the internal flow channel of the cold plate, and realizes the non-contact liquid cooling technology of cooling the heat source through heat transfer. In a Cold Plate Water Cooling system, heat-generating components such as chips do not directly contact the water, but dissipate heat through a cold plate mounted on the electronic components that need to be cooled.

ADVANTAGES

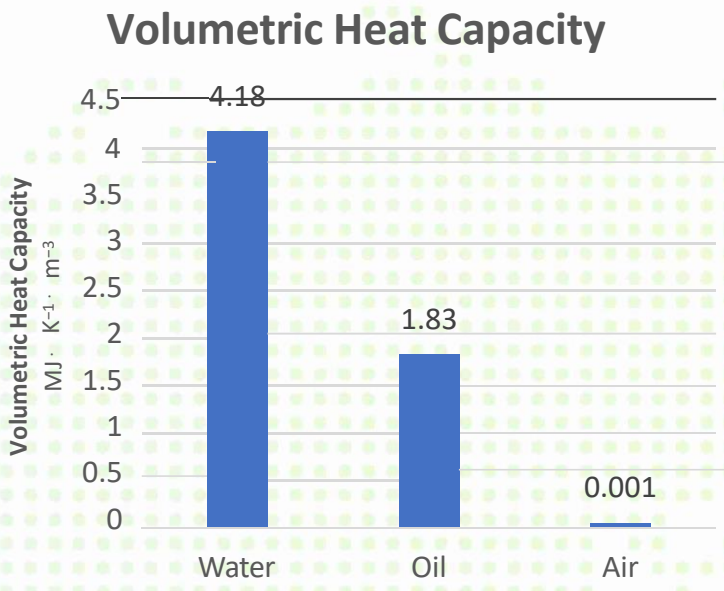
Take Away More Heat

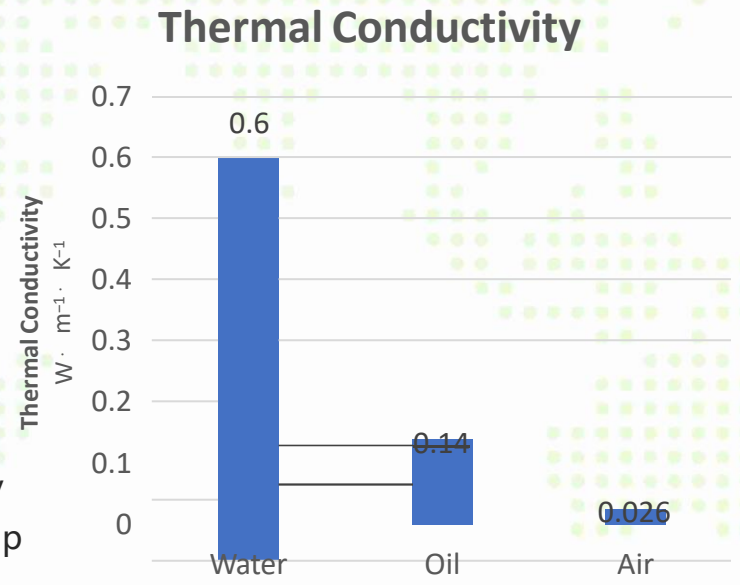
The volumetric heat capacity of water is 2 times that of oil and 4000 times that of air. This means that under the same volume, the water can take away more heat.

Temperature Transfer Faster

Thermal Conductivity: **Water > Oil > Air**

Water has better thermal conductivity and can take away the heat of the chip faster.





MinerMart.ca

Comparative Advantages

1

Assembled Design, Fast Deploy

2

Modular Design, Easy Combination

3

Distributed Type, Fit Any Mining Size

4

Flexibility, Applied to Multiple Scenarios

5

Environmentally Friendly, High Power Density and Low Noise

6

Quick Move, Forklift Cart (may be switched frequently)

MinerMart.ca

Comparative Advantages

7

Quick Layout,
>Indoor and Outdoor
(cabinet rainproof design)

8

Wide Voltage Range,
345 ~ 520V

9

Wide Frequency,
45 ~ 65hz

10

Heat Utilization,
Pipe Heating, Fracturing
Water Heating,
Residential/Office Heating

11

Wide Temperature
Range, Minus 40 to
Plus 70 Degrees

12

Near-zero Water
Consumption

MinerMart.ca

Certifications

Our company has passed ISO9001 Quality Management System Certification,the products developed by our company have obtained the export certification from the European Union, the United States, Canada, Russia and other countries.

MinerMart.ca

COMPREHENSIVE SOLUTIONS

02

Heat utilization

Mining boiler

Smart control system

HEAT UTILIZATION SCENARIO

GREENHOUSE HEATING

ANIMAL HUSBANDRY HEATING

INDUSTRIAL HEATING

RESIDENTIAL HEATING

POOL HEATING

Using the heat generated by the chips, our integrated systems can be applied to different heat usage scenarios. Combined with heating applications, "**double zero mining**" can be realized, that is, "zero electricity fee mining and zero carbon emission mining".

The heat generated by a **200kW** computing power boiler can satisfy the building heating of about **2000m²**.

Heat dissipation solutions

Mining boiler

Smart control system

Water cooler

Air cooler

Cooling tower

- If there is a natural water flow or river near the site, the natural water can be used to take away the heat by the water coolers.
- If the summer is extremely hot, or the site has rich water resources, the cooling tower solution can be used. The evaporative cooling solution can improve the cooling effect of the cooling tower and reduce the heat dissipation cost.
- If the summer temperature is suitable, or water resources are scarce, the air cooling solution can be used to efficiently solve the heat dissipation problem, and save the costs of water resources and cooling tower maintenance.

MinerMart.ca

SMART CONTROL SYSTEM

03

MinerMart.ca

Smart control system

The smart control system(SCS) independently developed by our company is composed of pipeline module, pump circulation module, heat exchange module and control module. SCS and mining boilers are highly integrated. Through the monitoring of operating parameters such as temperature, pressure, and hashrate, the operating status of each module is automatically adjusted to improve the hashrate and reliability of mining boilers, and reduce the failure rate and operation risk of the system.

MAIN FEATURES

- Intelligent control
- 304 Stainless steel pipe, strong corrosion resistance
- Frequency conversion pump, with strong adaptability
- Pump pack redundancy design
- Large screen touch screen interface
- Leakage detection system
- Built-in automatic fluid rehydration system
- Anti-condensation protection
- Micrometer-level filtration system

MinerMart.ca

Smart control system

MAIN FEATURES

- No-man on duty or less people on duty, reduce operation and maintenance investment
- Remote centralized monitoring
- OTA and maintenance
- Trend analysis and early warning
- Large screen touch screen, easy to use
- Frequency conversion control, reduce energy consumption and noise
- APP remote monitoring, SMS alarm
- Leakage detection system
- Built-in automatic fluid rehydration system
- Anti-condensation protection

APP remote monitor and control

MinerMart.ca

MINING BOILERS

04

MinerMart.ca

New design: Hydro cooling mining units

Hydro Cooling

Design and manufacture cooperated with MicroBT

Hashrate	226T±10%	220T±10%	198T±10%
Power Ratio	29 J/T±5%	31 J/T±5%	34 J/T±5%
PSU	3Phase+ground 380V~480V 50/60Hz Input 10kW		
Water demand	About 1L per machine		
Power Cable Model	Custom made		
Internet Connections	Ethernet		
Weight	Net weight:27.5 kg Shipping weight:30.0 kg(With packaging materials)		
Dimensions(W*D*H)	86mm×482.6mm×663mm （With handle）		

Mining boiler H series-Household type

HS20

- All-in-one design
- Floor heating
- Radiator heating
- Hot water
- Pool heating

Input Voltage and Frequency	3Phase 400V 50/60Hz 3Phase 480V 60Hz
Miner Capacity	2 units-Hydro cooling miners 
Inlet Temperature	20~50°C
Outlet Temperature	30~60°C
Flow Rate	20 L/min
Heating Capacity	19kW(64830 BTU)
Noise Level	55 dB@1m distance
Weight	150kg(2 miners included)
Dimensions(W*D*H)	600mm*1000mm*800mm

MinerMart.ca

Mining boiler M series- Distributed type

MS100

- Unattended
- Modular design
- Flexible installation
- Air transport
- Quick move

Input Voltage and Frequency	3Phase 400V 50/60Hz 3Phase 480V 60Hz
Miner Capacity	10 units-Hydro cooling miners 
Inlet Temperature	20~50°C
Outlet Temperature	30~60°C
Flow Rate	100 L/min
Heating Capacity	95kW(324150 BTU)
Noise Level	55 dB@1m distance
Weight	450kg(10 miners included)
Dimensions(W*D*H)	800mm*1000mm*2050mm

MinerMart.ca

Mining boiler N series –Centralized type

NS200

- Unattended
- Modular & assembled design
- Flexible installation
- Built-in PDU and network unit

Input Voltage and Frequency	3Phase 400V 50/60Hz 3Phase 480V 60Hz
Miner Capacity	20 units-Hydro cooling miners 
Inlet Temperature	20~50°C
Outlet Temperature	30~60°C
Flow Rate	200 L/min
Heating Capacity	190kW(648300 BTU)
Noise Level	45 dB@1m distance
Weight	840kg(20 miners included)
Dimensions(W*D*H)	800mm*1000mm*2050mm

MinerMart.ca

New Series Methane Green （For Flare Gas, Biogas, etc.）

- **Outdoor design** for flare gas, biogas ,etc.
- **Unattended**
- **Near-zero water consumption**
- Safe and reliable
- water and electrical isolation
- Flexible installation

Specifications

Power Consumption	100 kW
Input Voltage and Frequency	3Phase 400V 50/60Hz 3Phase 480V 60Hz
Miner Capacity	10 units-Hydro cooling miners 
Inlet Temperature	20~50°C
Outlet Temperature	30~60°C
Flow Rate	100 L/min
Heating Capacity	95kW(324150 BTU)
Noise Level	55 dB@1m distance
Ingress Protection	IP54
Weight	450kg(10 miners included)
Dimensions(W*D*H)	800mm*1000mm*2050mm

MinerMart.ca

Heat Core Electronic Waste Solution

We practice the concepts of recycling and circular economy, to empower carbon neutrality.

- Retired hash board recycled for reproduction
- Upgradable to the latest, sustainable
- **No electronic waste**

MinerMart.ca

CASES

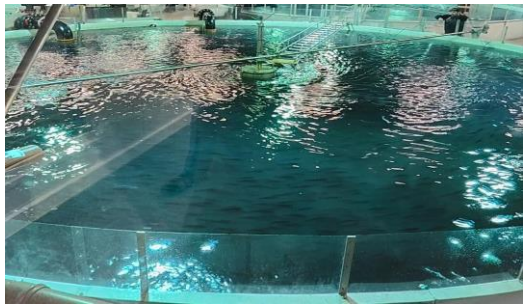
05

CASE

	Coal to Electric Heating	Smart Mining Farm
Photo		
Project	Coal to Electric Heating	Smart Mining Farm
Scale	**4000kW**	**20MW**
Value	Coal saving **490** tons/month (coal combustion calorific value is about **4000** kcal/kg)	Reduced O&M by **1/5** and equipment failure rate by **80%**

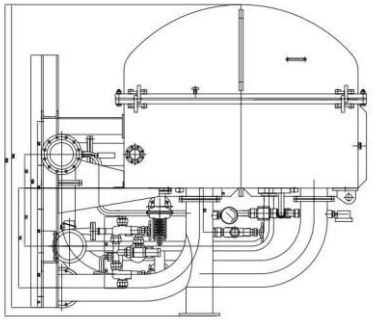
CASE

MinerMart.ca

	Fish Farm	Commercial Building Heating
Photo		
Project	Constant Temperature Fish Farming	Commercial Building Heating
Scale	**200kW** **150 million** Striped bass	**10MW**
Value	Fish farming combined with mining reduces the payback period to **6 months**	Heat utilization for the whole building of **130,000** square meters

CASE

MinerMart.ca

	Flare Gas Utilization	Seawater Desalination
Photo		 
Project	The originally burned natural gas is generated by a natural gas generator to supply energy for the integrated energy system	R&D a special system for seawater desalination, reduce the comprehensive cost of it, and realize zero-carbon mining & integrated application
Scale	**5000kW**	**In Progress**
Value	Solving the problem of natural gas waste, reducing carbon emissions by **63%**, and achieving zero conventional combustion loss	Save original cost, and reduce carbon emmission

MinerMart.ca

IF YOU WANT TO ACHIEVE GREEN MINING WITH US FEEL FREE TO CONTACT US

E-mail: sales@minermart.ca
Tel: Whatsapp/Telegram +1(825)735-7357