

Company Name: Shipping Address: Iowa

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Customer Contact:

MiCraft, LLC 5348 N Riverview Dr Kalamazoo, MI 49004



Andy Joynt

Big Grove Brewing

	_		Kalamazoo	o, MI 49004	8	7
Quotation Number: Quotation Date: Description:		CQ23022801CPACBG-02 Thursday, Navamber 16, 2022	Phone:	269.389.004	D WA IA C	
		· ·	Email:		Automation.com	
Line Item	Qty.	Description			Net Price	Total Pri
	ξ-,					
Α	1	Automated CIP Control Panel			\$54,768.00	\$54,768
		460V 3Phase 60Hertz (+/- 10%) (Wye Connection)				
		IDEC FC6 Platform				
		Stainless Steel Touchscreen Enclosure (Type 4X)				
		Touchscreen HMI				
		Estop Device				
		Start/Stop Switch				
		Main Non-Fused Disconnect with Exterior Handle Safe 24VDC Control Voltage				
		Safety and Switch Labeling				
		Wireway Organization				
		Craft Automation Enclosure Decal				
		Cortifications Listings and Class Bating				
		Certifications, Listings, and Class Rating cUL Listed under UL508a				
		Currently a 5 SCCR Rating Maximum (Higher Ratings are Available)				
		Enclosure will be rated "Type 5"				
		Safety Devices				
		E-Stop Pushbutton Device				
		Integrated Safety Relays for Redundant Safety Operation				
		Automation Hardware Assembly				
		15" Full Color High Resolution IDEC Touchscreen				
		Full Process Depiction with Automated Touch Control				
		English Units for all Display Values Continuous Alarm Log and Touchscreen Notifications				
		Password Based Screen Control Available				
		Recipe Management and Storage				
		Continuous Data Logging (Sensor Inputs)				
		IDEC FC6 PLC for I/O Control				
		Automated Process Control and Feedback				
		Powerloss Notification on Restart				
		Analog and Digital Feedback and Control				
		5pt Unmanaged Ethernet Switch				
		Spe offinality of Edition of Switch				
		Remote Connectivity				
		Dedicated VNC for in Network Remote Control from a Tablet or iPad				
		Global Access From Any Browser Enabled Device via Customer Provid	ed VPN			
		VPN Access also Allows for Remote Troubleshooting and Updates				
		Recipe Management				
		Dedicated recipe management software to drive consistency and repe	eatability			
		Ability to update recipes through the process for data retention				
		Continuous Data Logging				
		PLC Hardware will continuously data log all process setpoints and val	ues			
		along with recipe name for clear process reporting.				
		Batch and Yield Tracking Additional Quoting Required for data manipulation or SQL Server Inte	aration			
		Additional Quoting Required for data manipulation of SQL Server Inte	grauori			

Signature:	Date:

Line Item	Qty.	Description	Net Price	Total Price
		Email and Text Alert Notifications		
		PLC Hardware will continuously monitor fault conditions and send		
		a text or email alert notification Notifications contain crucial information for troubleshooting and		
		repair		
		Facility System Integration and Communication		
		Control system is designed to operate Grain Handling, Cook Assemblies, and Cellar from multiple HMI Touchscreens for added flexibility		
		Grain Handling, Cook Assemblies, and Cellar control enclosures are all connected		
		through ethernet communication for advanced process automation		
		CIP Process Automation Functionality		
		Automated CIP Assembly		
		System is engineered to safely dose and maintain hot CIP for the facility using the		
		CIP assembly.		
		Automated Functions		
		- Automated Tank Fill		
		System will automatically manage tank fill levels with water selection - Level Monitoring and Control		
		Displays and maintains proper level of chemical vessels		
		- Precision Dosing and Conductivity Display		
		System will use conductivity feedback to properly dose each vessel - Supply CIP Stage and Temperature Control		
		Creates multiple stages for temperature, flow, and spin time		
		- Return CIP Management		
		Works with Brewhouse and Cellar control systems to return used CIP		
		Outputs per Process		
		- Carbon Water Fill Valve (DO) 10V001		
		- HLT Fill Water (DO) 10V*** - HC Carbon Water Fill Valve (DO) 10V001		
		- HC HLT Fill Water (DO)		
		Descriptio Value Assessable		
		Pneumatic Valve Assembly Internal NEMA 1 pneumatic solenoid bank with PLC communication is included		
		for operation of each (DO) signal related to a pneumatic valve.		
		Cellar CIP Loop Assembly		
		Supply and return CIP loop assembly to feed the cellar		
		Automated Functions		
		- Dry Run Protection		
		Protects the supply pump from a dry run situation		
		Monitors flow of return pump and notifies of fault		
		 - Automated Flow Monitoring and Control System has the ability to maintain a desired flow rate trough the supply side 		
		- Loop Temperature Control		
		Maintains loop temperature through steam HEX		
		Inputs per Process		
		- Supply CIP Temperature Sensor (AI) 10TT001		
		- Return Conductivity Sensor (AI) CT - Return CIP Temperature Sensor (AI) TT		
		- Return car reimperature sensor (AI) - Supply Pump Dry Run Sensor (DI) 10LSL1X		
		- Return Flow Switch (DI) FC		
		Outputs per Process		
		- HEX Steam Valve (AO) TCV10V033		
		- Supply Valva (DO)		
		- Supply Valve (DO) 10V016 - Supply to Return Bypass (DO) 10V018		
		- Return Valve (DO) 10V017		
		- Return Valve (DO) 10V029		
		- Control Valve ONE (DO) ADD - Control Valve TWO (DO) ADD		
		. ,		
		Automated Pump Control - Cellar CIP Supply Pump (VFD) 10M001		
		10HP Motor (VFD Speed Control)		

Signature:	Date:

Line Item	Qty.	Description		Net Price	Total Price
		BH CIP Loop Assembly			
		Supply and return CIP loop assembly to feed the E	BH		
		Automotod Functions			
		Automated Functions - Dry Run Protection			
		Protects the supply pump from a dry run situa	tion		
		Monitors flow of return pump and notifies of fa			
		- Automated Flow Monitoring and Control			
		System has the ability to maintain a desired flo - Loop Temperature Control	ow rate trough the supply side		
		Maintains loop temperature through steam HE	X		
		riamiamis isop temperature amough steam rie	•		
		Inputs per Process			
		- Supply CIP Temperature Sensor (AI)	10TT002		
		Return Conductivity Sensor (AI)Return CIP Temperature Sensor (AI)	СТ ТТ		
		- Supply Pump Dry Run Sensor (DI)	10LSL1X		
		- Return Flow Switch (DI)	FC		
		Outputs now Process			
		Outputs per Process - HEX Steam Valve (AO)	TCV10V034		
		. IEA Securit varie (110)	137107031		
		- Supply Valve ONE (DO)	10V019		
		- Supply Valve TWO (DO)	10V020		
		Supply to Return Bypass (DO)Return Valve (DO)	10V022 10V023		
		- CSR Valve (DO)	10V024		
		- Control Valve (DO)	10V009		
		- Drain Valve (DO)	10V010		
		Automated Pump Control			
		- BH CIP Supply Pump (VFD)	10M001		
		10HP Motor (VFD Speed Control)			
		Dro Dinco Water Tank Accombly			
		Pre-Rinse Water Tank Assembly Tank Assembly for CIP Process			
		Turner assembly for ear 1 recess			
		Automated Functions			
		 Automated Tank Fill System will automatically manage tank fill leve 	als with water colection		
		- Level Monitoring and Control	is with water selection		
		Displays and maintains proper level of chemica	al vessels		
		Inputs per Process - Tank Level Sensor (AI)	PT		
		- Dose Barrel Sensor (AI)	25LSL1201		
		_ =====================================			
		Outputs per Process	10,100		
		- Return Valve (DO) - Drain Valve (DO)	10V030		
		- Outlet Valve (DO)	10V011		
		Automated Pump Control			
		- Dosing Pump Control (DO) Pneumatic Pump			
		r neumade r ump			
		Caustic Tank Assembly			
		Tank Assembly for CIP Process			
		Automated Functions			
		- Automated Tank Fill			
		System will automatically manage tank fill leve	els with water selection		
		- Level Monitoring and Control	alarala		
		Displays and maintains proper level of chemica	ai vessels		
		Inputs per Process			
		- Tank Level Sensor (AI)	PT		
		- Dose Barrel Sensor (AI)	25LSL1202		
		Outputs per Process			
		- Return Valve (DO)	10V031		
		- Drain Valve (DO)			
		- Outlet Valve (DO)	10V012		
		Automated Pump Control			
		- Dosing Pump Control (DO)			
		Pneumatic Pump			

Signature:	Date:

Line Item	Qty.	Descrip	otion	Net Price	Total Price
		Acid Tank ONE Assembly			
		Tank Assembly for CIP Process			
		Automated Functions			
		- Automated Tank Fill	II lavala viith vataa aalastiaa		
		System will automatically manage tank fi - Level Monitoring and Control	II levels with water selection		
		Displays and maintains proper level of ch	emical vessels		
		Inputs per Process			
		- Tank Level Sensor (AI)	PT 251 51 4202		
		- Dose Barrel Sensor (AI)	25LSL1203		
		Outputs per Process	10V032		
		- Return Valve (DO) - Drain Valve (DO)	107032		
		- Outlet Valve (DO)	10V013		
		Automated Pump Control			
		 Dosing Pump Control (DO) Pneumatic Pump 			
		-			
		Sani Tank Assembly Tank Assembly for CIP Process			
		Outputs per Process - Return Valve (DO)	10V028		
		- Return Valve (DO)	10V026		
		- Drain Valve (DO)	10V004		
		- Inlet Valve (DO) - Outlet Valve (DO)	10V003 10V005		
			10,003		
		Automated Pump Control - Dosing Pump Control (DO) (X2)			
		Pneumatic Pumps			
		Hot Caustic Tank ONE Assembly Tank Assembly for CIP Process			
		Automated Functions			
		- Automated Tank Fill			
		System will automatically manage tank fi - Level Monitoring and Control Displays and maintains proper level of ch			
		Inputs per Process - Tank Level Sensor (AI)	PT		
		- Dose Barrel Sensor (AI)	15LSL1201		
		Outputs per Process			
		- Return Valve (DO)	10V035		
		- Drain Valve (DO) - Outlet Valve (DO)	10V006		
		Automated Pump Control			
		- Dosing Pump Control (DO)			
		Pneumatic Pump			

Signature:	Date:

Line Item	Qty.	Description	on	Net Price	Total Price
		Hot Caustic Tank TWO Assembly			
		Tank Assembly for CIP Process			
		Automated Functions			
		- Automated Tank Fill			
		System will automatically manage tank fill le	vels with water selection		
		 Level Monitoring and Control Displays and maintains proper level of chem 	ical vessels		
		Inputs per Process - Tank Level Sensor (AI)	PT		
		- Dose Barrel Sensor (AI)	15LSL1202		
		Outrotte and December			
		Outputs per Process - Return Valve (DO)	10V026		
		- Drain Valve (DO)			
		- Outlet Valve (DO)	10V008		
		Automated Pump Control			
		- Dosing Pump Control (DO)			
		Pneumatic Pump			
		Acid Tank TWO Assembly			
		Tank Assembly for CIP Process			
		Automated Functions			
		- Automated Tank Fill			
		System will automatically manage tank fill le - Level Monitoring and Control	vels with water selection		
		Displays and maintains proper level of chem	ical vessels		
		Inputs per Process - Tank Level Sensor (AI)	PT		
		- Dose Barrel Sensor (AI)	15LSL1202		
		Outroute new Process			
		Outputs per Process - Return Valve (DO)	10V025		
		- Drain Valve (DO)			
		- Outlet Valve (DO)	10V007		
		Automated Pump Control			
		 Dosing Pump Control (DO) Pneumatic Pump 			
		Priedinatic Pulip			

Signature:	Date:	

Line Item	Qty.	Description	Net Price	Total Price
В	1	THREE Day Startup Assistance (REQUIRED) Three Day Onsite (8Hr PD) Startup Assistance and Process Automation Tutorial Verification of Proper Control Signals and Process Control and Power Wiring must be Wired per Schematics Prior to Arrival Mechanical Portion of Process Must be Fully Functional All Brewing Materials must be Present and Available for Process Verification Additional Material is Not Included At Least Three Weeks Notice of Requested Onsite Date is Required Includes Travel, Lodging, and Meals	\$4,350.00	\$4,350.00

By signing below, you agree to purchase the equipment described under the terms and conditions set forth by MiCraft, LLC.				
Signature:	Date:			

FULL TERMS AND CONDITIONS AVAILABLE ON REQUEST OR AT CRAFTAUTOMATION.COM/TERMS-AND-CONDITIONS

Warranty Information

All parts and components come with a 1yr warranty.

Customer is responsible for the cost of any part and component replacements (including shipping charges)

if the malfunction is due to issues within user setup or user error.

Craft Automation will facilitate a manufacturers warranty replacement of any part or component

if the part issue is in fact deemed a factory defect by the manufacturer.

Craft Automation will cover the cost of a part and component replacement (including shipping charges)

if a malfunction is due to engineering or programming error within the panel.

Craft Automation is not responsible for any onsite replacement installation of any part or component.

For any returned equipment the Warranty Processing Agreement must be signed and submitted by the customer.

Support Information

Craft Automation provides Remote Control Commissioning at no charge.

Onsite Control Commissioning is available for an additional charge.

Craft Automation happily provides customer phone support for the first year of use of our product.

Additional Tech Support outside the first year of use may be accommodated based on

the scope of support requested; additional charges may apply.

For more information please request to see the Tech Support and Commissioning Outline.

Terms: 50% ARO, 50% Prior to Delivery; Parts 100% Due on Receipt of Order

Payment:
Sales Tax:
Check = No Fee; ACH Transfer = No Fee; Wire Transfer = \$15 Fee; Credit Card = 3.5% Fee
Applicable Sales Tax Charged Unless Tax Exempt Certificate is Provided Upon Order
Additional Costs May Be Associated To Expedited Orders, Please Request A Quote
Additional Costs Are Associated With a Change Order, Please Request A Quote
Storage Fee:
2.0% of Principal Amount Per Month After 30 Days Post Completion or Agreed Ship Date

Late Payment: 1.5% of Principal Amount, Due at the End of Each 30 Day Period Post Due Date

Freight: Prepaid and Add to Invoice
Delivery: 10-12 Weeks ARO
FOB: Kalamazoo, Michigan

This quote is only valid for 30 days from date of submission.

This quotation is offered under the expressed agreement all Terms and Conditions described here within or online at craftautomation.com this quotation supersede any and all other Terms and Conditions not supplied by MiCraft, LLC; unless specified in a written and signed agreement by MiCraft, LLC

Ry Stocking

By signing below, you agree to purchase the equipment described under the terms and conditions set forth by MiCraft, LLC.	
Signature:	Date: