



INDUSTRIAL FIREFIGHTING

FOAM PROPORTIONERS

# AQUIS™ ULTRAFLOW

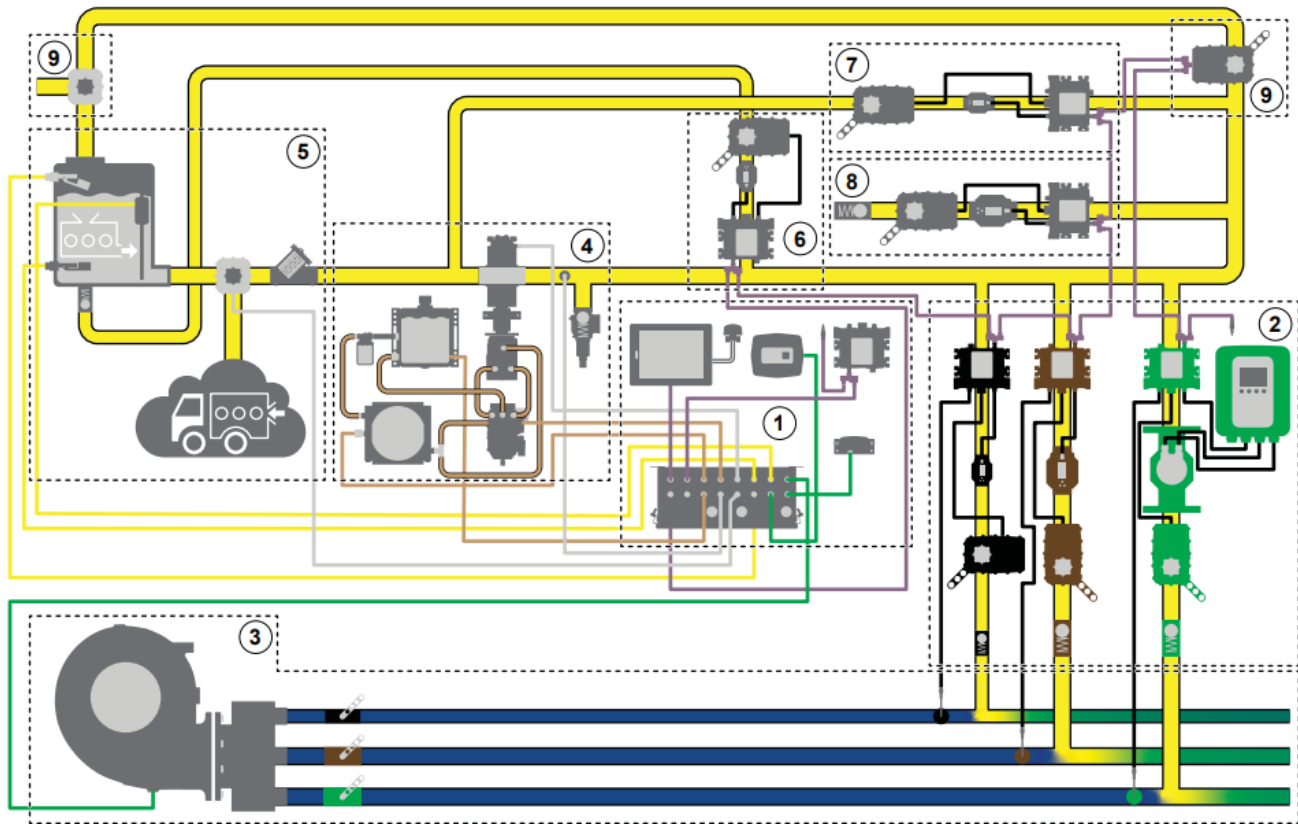


## BENEFITS OF FOAM

- 50% more effective than plain water
- Improved firefighter safety
- Faster knockdown time
- Less property damage
- Less water used

Waterous AQUIS™ ULTRAFLOW is a high- capacity demand based concentrate proportioning system. ULTRAFLOW is compatible with all current AFFF and non- fluorinated concentrates and utilizes magnetic flowmeters for precision concentrate to water ratio- control accurate within 2% over the full calibrated concentrate pump operating range. Electronic closed loop measurement and control of the concentrate injection rate relative to water flow provides precise concentrate to water ratios at up to sixteen (16) independent solution capable discharges.

## SPECIFICATIONS: FOAM SYSTEMS: ULTRAFLOW INDUSTRIAL FIREFIGHTING



### Each System Includes:

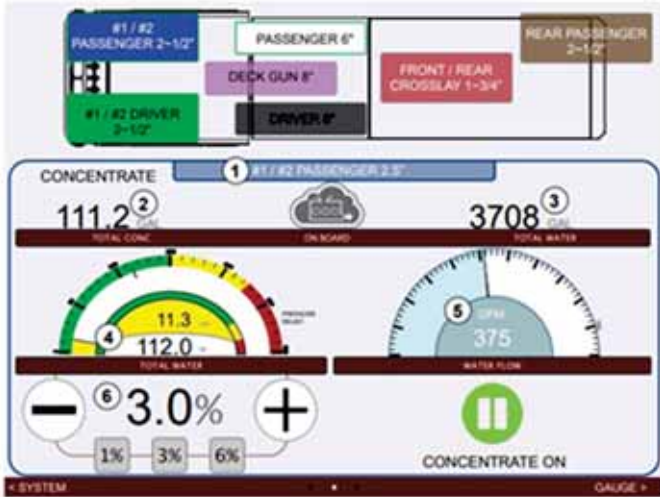
1. **Control System**
  - 8" or 15" Tellurus Touchscreen HMI
  - Control Box
  - Manual Override Switch
  - Power Disconnect Relay
  - Remote I/O
  - Various Cables
2. **Discharge Line Assembly (DLA)**
  - Node Controller
  - Split CANbus Cable
  - Concentrate Control Valve
  - Magnetic Flowmeter
  - Check Valve
3. **Water Pump with Distribution Manifold**
  - CRU-2 High Flow Pump
  - Distribution Manifold with Paddlewheel flowmeter
  - Water and Solution Pressure Transducers
4. **Concentrate Pump**
  - Hydraulic Motor drives concentrate pump
  - Hydraulic Pump drives hydraulic motor
  - Hydraulic fluid reservoir, filter, heat exchanger,
  - Temperature Sensor and Fluid Level Sensor
  - Pressure Transducer and Pressure Relief Valve
5. **Concentrate Supply**
  - Concentrate Supply Tank
  - Tank Full Sensor
  - Tank Low Sensor
  - Tank Level Sensor
  - Concentrate Pump Intake Select Valve
  - Concentrate Strainer
6. **Concentrate Supply Refill Line**
7. **Low Flow Bypass Line**
8. **Transfer Line**
9. **Priming Line**
  - Priming Valve

# SPECIFICATIONS: FOAMSYSTEMS: ULTRAFLOW

## Control System

### 8" or 15" Tellurus Touchscreen HMI

The Tellurus Touchscreen allows the pump operator to perform the following control and operation functions for each Discharge Line Assembly (DLA):



- Rugged Graphical Interface (HMI)
- Allows for gloved operation
- Control all 16 discharges from single device
- Choose between plain water or solution
- Provide touchscreen control of proportioning rates
- Display current flow-per-minute of water
- Display total volume of water discharged during and after operations are completed
- Display total amount of foam concentrate consumed
- Display injection percentage
- Allow three (3) injection percentage set points to be stored and selected
- Tested to military and European standards
- Remote upgrade and configuration
- Flow, Refill and Transfer simultaneously

## Control Box

The control box connects various components in the system and contains the programmable logic controllers (PLC). The system provides continuous monitoring of system performance, self-diagnostics and reporting of warning and alarm conditions via the Tellurus Touchscreen.

## Manual Override Switch

The manual override switch disables the automatic control of the concentrate control valves.

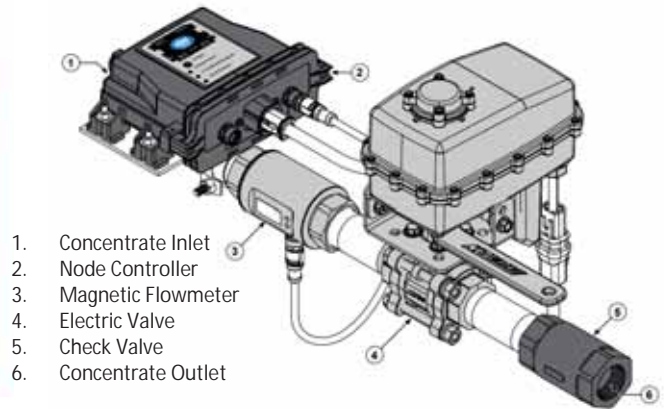
## Power Disconnect Relay

The power disconnect relay enables and disables power to the DLA(s).

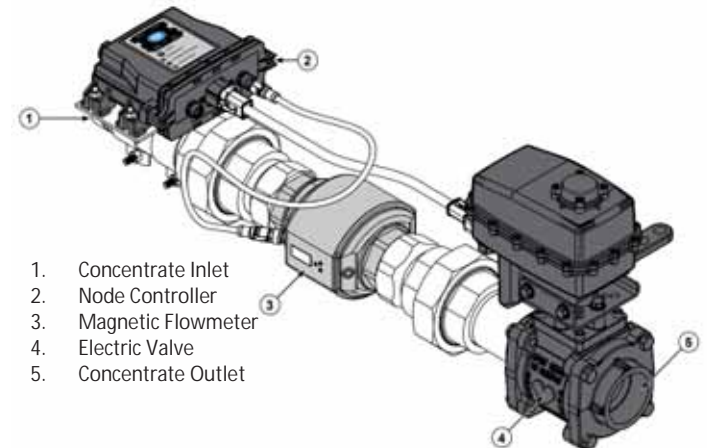
## Discharge Line Assembly (DLA)

The Discharge Line Assembly manages the concentrate injected into the water discharged by the water pump. DLA's are available in a 1" Hand Line Assembly for smaller discharges requiring less concentrate (26 GPM Max Flow Rate), 2" Full Capacity Assembly (238 GPM Max Flow Rate) or 2" High Flow Assembly (373 GPM Max Flow Rate).

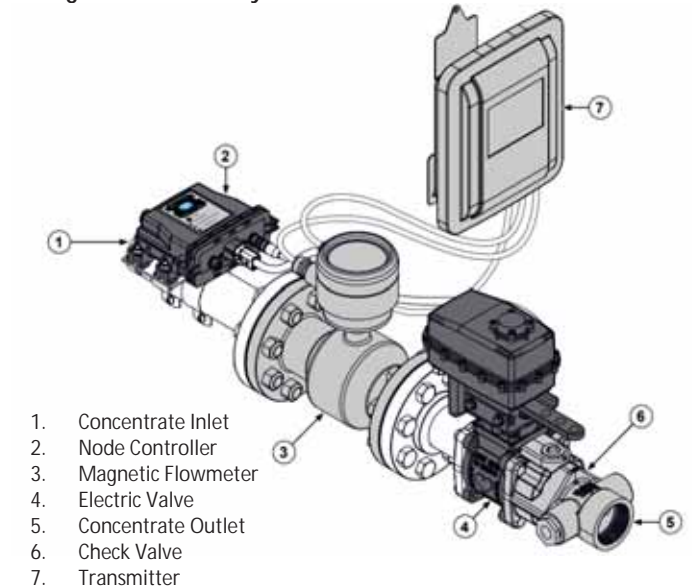
### 1" Handline Assembly



### 2" Full Capacity Assembly



### 2" High Flow Assembly



## SPECIFICATIONS: FOAMSYSTEMS: ULTRAFLOW

### Water Pump with Distribution Manifold

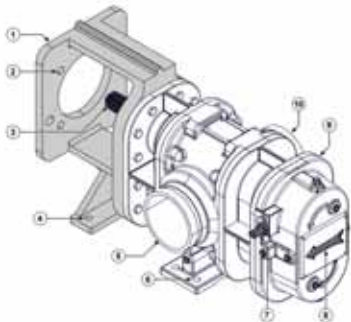
The Waterous CRU-2 Water Pump flows over 4000 GPM (15000 l/min) from draft and over 6000 GPM (22700 l/min) with a pressurized intake.



- Single stage, vertically-split ductile iron body
- Bronze replaceable wear rings
- Silicon bronze, mechanically and hydraulically balanced impeller
- Stainless steel impeller shaft
- Self-adjusting mechanical seal
- 10-inch Victaulic intake
- 6-inch ANSI flanged discharge

### Concentrate Pump

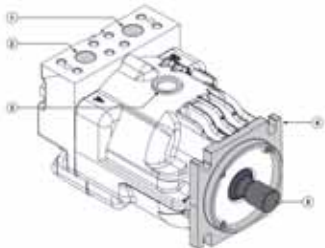
The concentrate pump is a positive displacement, rotary gear bronze pump that pressurizes the concentrate for direct injection at each Discharge Line Assembly (DLA).



- Material: Bronze
- Various Performance Ranges
- Ball-style Bearings (no bushings)
- Solid Stainless Steel Rotor Shafts
- Pressure Transducer and Relief Valve

### Hydraulic Motor

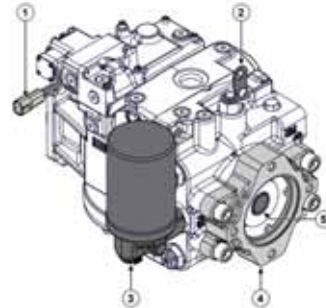
The pump is driven by a hydraulic motor under direct control of the Primary System Control Module.



### Hydraulic Pump

The hydraulic motor is driven by a hydraulic pump.

- Hydraulic Temperature Gauge



### Concentrate Supply

This contains components that contain or supply foam concentrate for the system.

- Concentrate Supply Tank
- Tank Full Sensor
- Tank Low Sensor
- Tank Level Sensor
- Concentrate Pump Intake Select Valve
- Concentrate Strainer

### Concentrate Tank Re-Fill and Transfer

The concentrate supply consists of the Concentrate Tank Re-Fill and Transfer. All functions are operator controlled via the Tellurus Touchscreen HMI. The HMI allows simultaneous control of CAN enabled transfer valves for routing of concentrate flow to on-board tank, off-board outlet and discharge line assemblies.

### Low Flow Bypass Line

This returns a portion of the pumped concentrate in the supply line back to the pump inlet when the desired concentrate output requires the pump to operate at an RPM that is lower than possible by the pump.

### Transfer Line

This allows you to transfer or relay concentrate from the apparatus to another location.

### Priming Line

This evacuates air from the concentrate pump inlet as the system primes before operation.

### OEM Supplied Components:

- Hydraulic Hoses and Couplings
- Hydraulic Pressure Gauge
- Concentrate Hoses and Piping