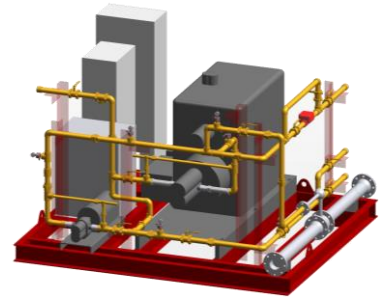


# BALANCED PRESSURE SYSTEM FOAM PUMPS SKIDS

Model SKID (SKID-B & SKID-I)

Foam pump skids for balanced pressure systems



## PRODUCT DESCRIPTION

The foam pump skid for balanced pressure system models SKID-B and SKID-I from AG Fire Sprinkler is an integrated deluge skid system. It is pre-assembled open skid mounted on cabinet. The entire package is pre wired and all water connections have flanged ends to provide minimal installation time. The package includes inlet, outlet, bypass valves, pressure switches, solenoid valve, common drain and flanged connection for detection network.

The system is available as a skid mounted unit, in different flow range, varying from 150 to 18000 LPM. Each skid consist of a positive displacement pump, a pump drive, an electric control, diesel pump, diesel tank, driven diesel control, a bypass valve, a manual regulating valve, a ratio controller, interconnecting piping in stainless steel or bronze with various controlling valves, check valve, flush-in and flush-out valve.

## TECHNICAL DATA

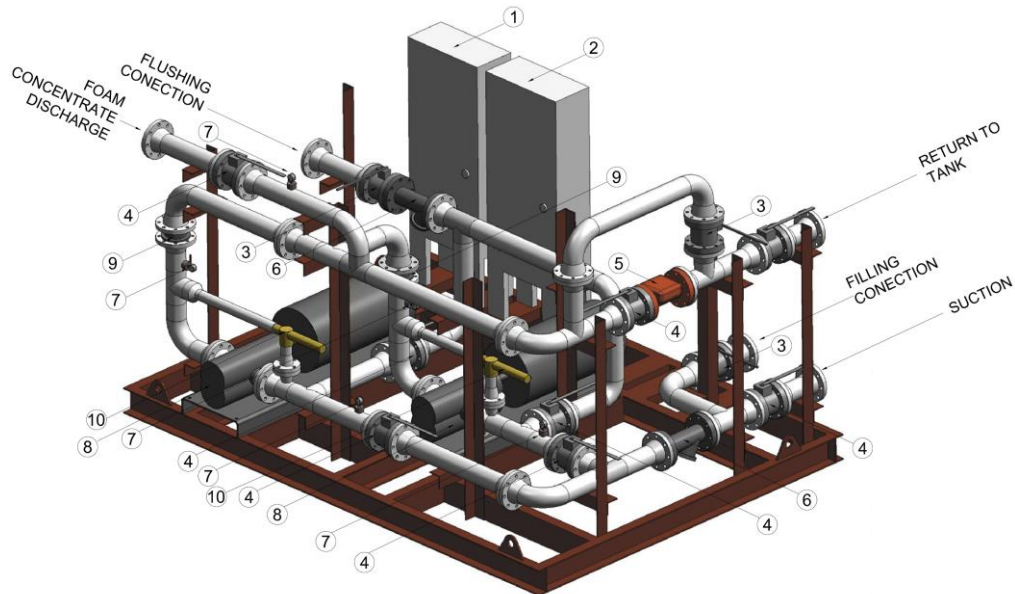
|  |  |
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| <b>Model</b>                               | SKID-B: Bronze<br>SKID-I: Stainless Steel ASTM A 316                         |
| <b>Full service diesel pump controller</b> | NEMA 4 Enclosure   |
| <b>Pressure rating</b>                     | 17,5 bar (250 psi)   |
| <b>Trim</b>                                | Galvanized steel with brass valves as standard supply<br>Optional Steel trim |
| <b>Finish</b>                              | Red RAL 3000   |

## OPERATION

The basic system utilizes the principle of operation based on the use of a modified venturi device called "Ratio Controller". As the water flows through a nozzle at the inlet of ratio controller, a low-pressure area is created between the inlet nozzle and a downstream section called diffuser. This low-pressure area causes foam concentrate to flow through a metering orifice at the concentrate inlet and into the low-pressure area. As the system demand varies, the flow through the ratio controller increase or decreases, which in turn varies the pressure at low pressure area of ratio controller, creating a corresponding pressure drop across the foam concentrate metering orifice. This corresponding change of pressure results in a foam concentrate flow, which is proportional to the water flow through the ratio controller.

The pressure sensing line from the ratio controller inlet for water pressure, and from the concentrate supply side above the metering orifice are connected to a bypass valve. This valve automatically adjusts the concentrate pressure corresponding to the water pressure by re-circulating the concentrate in return line to the concentrate storage tank. Manually the pressure can also be balanced by using manual regulating globe valve to read equal pressure of the water gauge and the foam concentrate gauge (or through a duplex gauge).

## COMPONENTS












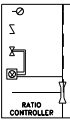



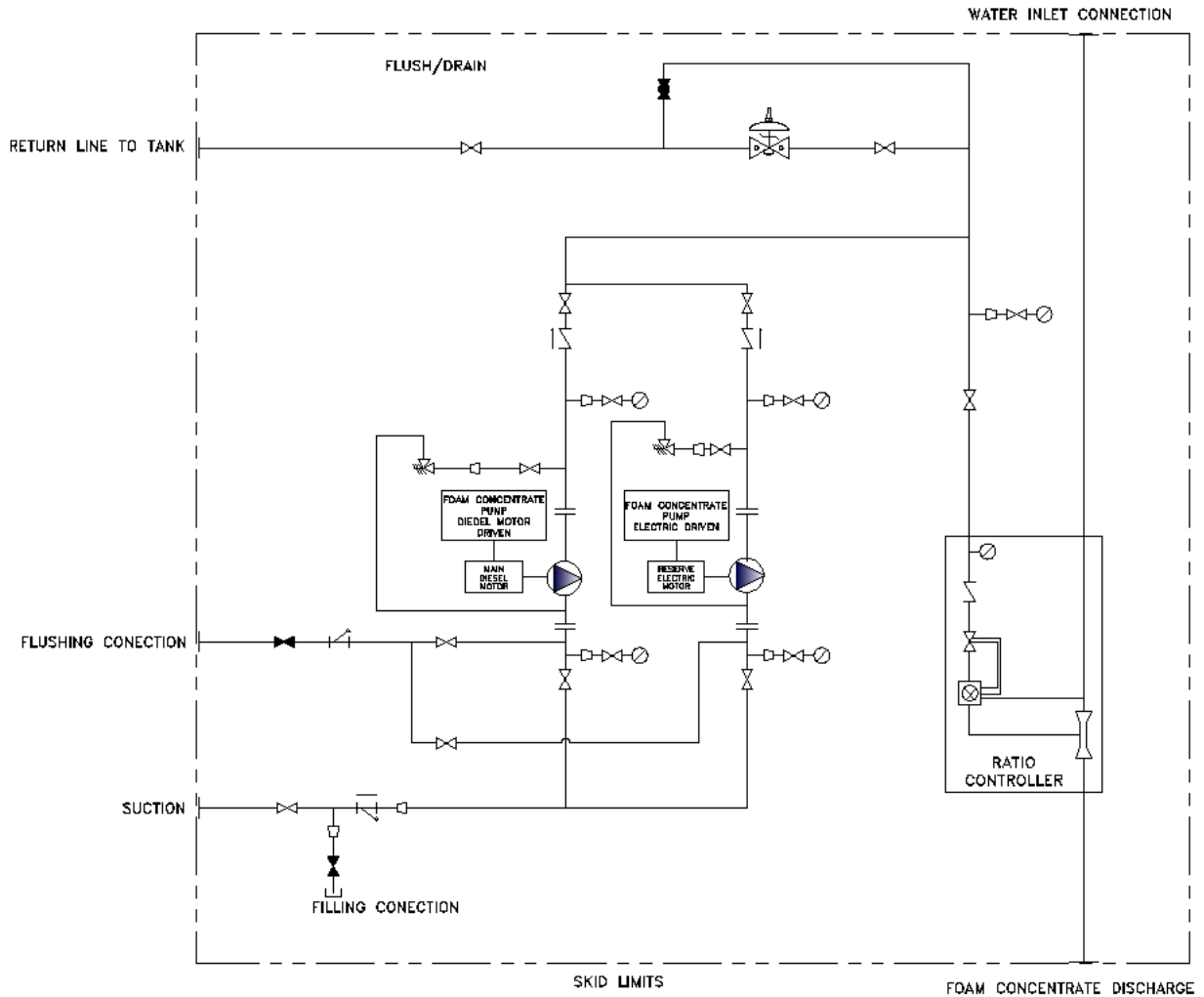
| ITEM | DESCRIPTION                            | QUANTITY |
|------|--|----------|
| 1    | Electric fire pump controller RESERVE  | 1        |
| 2    | Electric fire pump controllers MAIN    | 1        |
| 3    | Valve normally closed                  | 3        |
| 4    | Valve normally opened                  | 8        |
| 5    | Differential pressure sustaining valve | 1        |
| 6    | Y-strainer                             | 2        |
| 7    | Pressure gauge with 3-way valve        | 5        |
| 8    | Foam pump                              | 2        |
| 9    | Check valve                            | 2        |
| 10   | Pressure relief valve                  | 2        |

If other components are required, please contact with the technical department of AG Fire Sprinkler

## SYSTEM PID

### PROCESS SYMBOLS

|   |                              |   |   |
|---|------------------------------|---|---|
|  | FLUSHING CONNECTION VALVE    |  | Y-STRAINER  |
|  | FLEXIBLE CONNECTION          |  | PRESSURE RELIEF VALVE   |
|  | PRESSURE GAUGE               |  | PRESSURE SUSTAINING VALVE                                       |
|  | FOAM PUMP                    |   |   |
|  | VALVE, NORMALLY OPEN         |   |   |
|  | VALVE, NORMALLY CLOSED       |   |   |
|  | CHECK VALVE                  |   |   |
|  | ANGLE VALVE, NORMALLY CLOSED |   |   |
|   |                              |  | MOTOR PUMP  |
|   |                              |  | RATIO CONTROLLER<br>4" INLINE BALANCED<br>PRESSURE PROPORTIONER |



### INSTALLATION, TESTING AND MAINTENANCE

The SKID must be installed, inspected and tested by a qualified and trained person.

After few initial successful tests, a trained person must inspect and test the system. It is recommended to carry out physical inspection of the system regularly. The system must be fully tested at least once in a year or in accordance with applicable NFPA codes or in accordance to the standard of the organization having local jurisdiction.

The owner is responsible for maintenance of the inductor in proper operating condition.

### ORDERING INFORMATION

| SIZE     | MATERIAL             | CODE   |
|----------|----------------------|--------|
| Up to 2" | Bronze               | SKID-B |
| Whatever | Stainless steel A136 | SKID-I |

Specify:

|            |  |
|------------|--|
| Model      |  |
| Quantity   |  |
| Material   |  |
| Components |  |
| Flow       |  |
| Trim type  |  |

## AG FIRE SPRINKLER

AG Fire Sprinkler offers a wide selection of components. Then a list of products is presented by AG Fire Sprinkler, we can offer all these components, made with precision to protect people, anywhere, anytime.

- Sprinklers
  - Standard Coverage
  - Extended Coverage
  - Storage
  - Dry
  - Accessories
- System Valves
  - Wet
  - Dry
  - Preaction Equipment
  - Accessories
- Spray System Open Nozzles
  - High Velocity Nozzles
  - Medium Velocity Nozzles
  - Window Nozzles
  - Hydroshield Nozzles
  - Mushroom Type Nozzles
- Foam equipment
  - Tanks
  - Proportioners
  - Foam Discharge Equipment
  - Foam Concentrates
- Deluge equipment for Water Spray and Foam
  - Clapper Deluge Valves
  - Diaphragm Deluge Valves
- Monitors
  - Manual Monitors
  - Remote Monitors
  - Monitor Nozzles
  - Towers and Trolleys
- Valves
  - Butterfly Valves
  - Gate Valves
  - Check Valves
  - Pressure Control Valves
  - Test and Drain
  - Hose, Hydrant and Fire Connection Valves
  - Fire Department Connections

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The equipment presented in this bulletin is to be installed in accordance with the latest published Standard of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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