Clark·Reliance®

CAST IRON WATER COLUMNS

SPECIFICATION AND TRIM SELECTION • FROM 0 TO 250 PSI

HOW TO SPECIFY AND ORDER THE CLARK-RELIANCE CAST IRON WATER COLUMNS TO MEET YOUR INDIVIDUAL APPLICATION

Clark-Reliance manufactures a small, cast iron, float type water column (Column 1: Figure 1) and a larger size cast iron water column that can be either float type or probe type (Universal Column W0250: Figure 2 and Figure 3). Information contained in these pages describes the design and performance of each column.

To select the proper water column model, first acquaint yourself with the types of columns available, including a review of the Model Selection Guide presented below, and then complete the following recommended steps:

- Determine the gage glass visibility required.
- Determine the steam and water center dimension.
- Determine the alarm variation requirements.
- List the alarm/control functions desired.

Completion of these steps will direct you toward the proper model. If selection assistance is required, contact your local Clark-Reliance representative or the Clark-Reliance Technical Services Department direct.

Installation Notes For recommended installation procedures, refer to Catalog 500, Section AB2.4. Also be advised that for all water column models *the lowest visible part of water gage glass must be at least 2 inches above the lowest permissible boiler water level.*

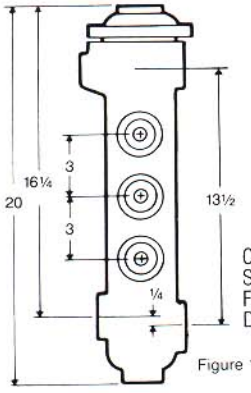
Material Note The cast iron used in Clark-Reliance Column 1 and W0250 water columns is ASTM A278-Cl.30.

COLUMN 1: FLOAT TYPE

- Small Column Size
- Fixed Dimensions
- Fixed Connection Locations
- Alarm Function Only

Column 1 is a comparatively small water column in regard to water gage center measurements and other related dimensions, as shown in Figure 1. Column 1 is available only with 1" or 1¼" steam and water connections. Note that this cast iron column is available only with dimensions as shown in Figure 1.

Note: *Maximum Column 1 visibility with a Tubular Glass Gage is 9". If Prismatic Water Gage is required, refer to Catalog 500, Section AB7.2.*



COLUMN 1 SHOWING FIXED DIMENSIONS

Figure 1

REFER TO OTHER CLARK-RELIANCE CATALOG 500 SECTIONS FOR TRIM AND ACCESSORY DATA

	Catalog Section
Water Column Safety Systems	AB3.1
Gage Cocks	AB4.1
Water Gage Valves, Vertical	AB5.1
Water Gage Valves, Tiltview®	AB6.1
Prismatic Water Gages	AB7.1
Flat Glass Gages	AB7.3
Simpliport® Bi-Color Gage	AB7.5
Gage Illuminators	AB8.1

UNIVERSAL CAST IRON WATER COLUMN W0250-FA AS FLOAT ALARM TYPE

Figure 2

UNIVERSAL CAST IRON WATER COLUMN W0250-EA AS PROBE ALARM/CONTROLS TYPE

Figure 3

CAST IRON WATER COLUMNS MODEL SELECTION GUIDE

CAST IRON MODELS		TYPICAL FUNCTIONS				
Float Type	Probe Type*	High Alarm	Low Alarm	Low Fuel Cut-Out	High Fuel Cut-Out	Pump Actuation
COLUMN 1	—	•	•	—	—	—
W0250-FA	—	•	•	—	—	—
—	CONVERTED W0250-FA	AS SPECIFIED				
—	W0250-EA3	•	•	—	—	—
—	W0250-EA4	•	•	•	—	—
—	W0250-EA5	•	•	•	•	—
—	W0250-EA6	•	•	•	—	•

*NOTE: Last digit shows number of probes used, including the common ground probe.

THE CLARK-RELIANCE CAST IRON UNIVERSAL WATER COLUMN W0250

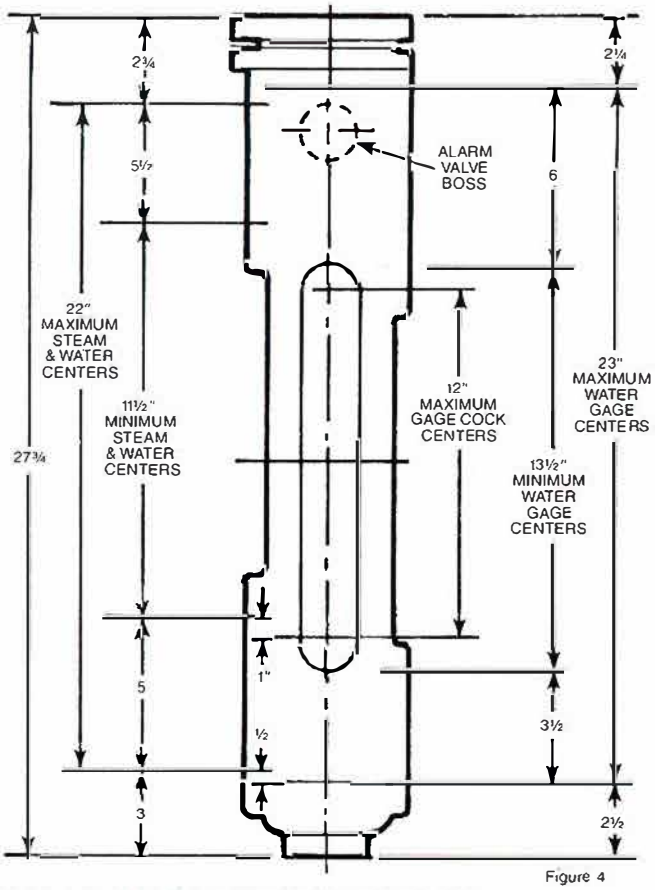


Figure 4

UNIVERSAL COLUMN SHOWING FIXED AND VARIABLE DIMENSION DATA

- Available As Float Type Or Probe Type Column
- 8" Alarm Variation As Float Type Column
- 6" Or 8" Alarm Variation As Probe Type Column

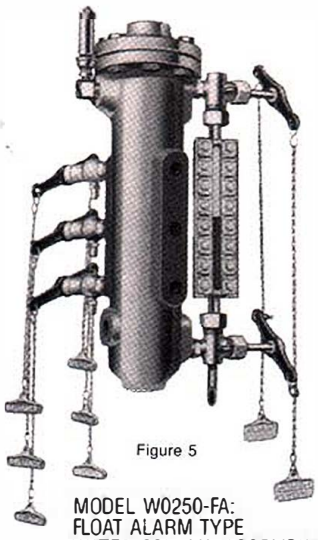


Figure 5

MODEL W0250-FA: FLOAT ALARM TYPE WATER COLUMN ASSEMBLY WITH PRISMATIC GAGE AND TRIM

Dimension Notes All steam and water connections on the Universal W0250 column are 1¼" or 1½". All tappings for water gages, cage cocks and blow-offs are ¾". All tappings for alarm valves on Float types are 1". All cap tappings are 1¼" or 1½".

Figure 6

MODEL W0250-EA4: PROBE ALARM/CONTROLS TYPE WATER COLUMN ASSEMBLY WITH TUBULAR GLASS GAGE AND TRIM

FLOAT TYPE COLUMN W0250-FA

- Variable Gage Centers
- Variable Steam/Water Locations
- Alarm Function Only

Column W0250 provides water gage centers that can vary upon specification from 13½" to 23". Top or side steam and water connections can vary upon specification from 11½" to 22". Refer to Figure 4.

Conversion Columns All Clark-Reliance cast iron, float type columns serving pressures to 250 PSI (excluding Column 1) can be converted to accommodate a probe cap. This conversion brings fuel cut-out controls, as well as high/low alarms, to converted columns. Refer to Catalog 500, Section AB3.1.

PROBE TYPE COLUMN W0250-EA4

- Variable Gage Centers
- Variable Steam/Water Locations
- Alarm & Fuel Cut-Out Functions

Column W0250-EA4 offers the same variations in water gage centers and steam/water connections as noted for Column W0250-FA and shown in Figure 4. In addition, W0250-EA4 also provides probe actuated high/low alarms and low fuel cut out control.

Column W0250-EA3 provides probe actuated high/low alarms only. (See Model Selection Guide provided.)

Probe functions noted above are considered standard. Other probe functions may be added or substituted to meet specific requirements.

PROBE TYPE COLUMN W0250-EA5

- Variable Gage Centers
- Variable Steam/Water Locations
- Alarm & Fuel Cut-Out & Pump Control Functions

Column W025C-EA6 offers the same variations in water gage centers and steam/water connections as noted for Column W0250-FA and shown in Figure 4. In addition to probe actuated high/low alarms and low fuel cut-out functions, this column also provides probe controlled pump actuation.

Column W025C-EA5 provides probe actuated high/low alarms in combination with low and high fuel cut-out.

Probe functions noted above are considered standard. Other probe functions may be added or substituted to meet specific requirements.

For additional information, contact your local Clark-Reliance representative

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ISO 9001 REGISTERED

NOTE: Clark-Reliance shall not be liable for damages of any kind resulting in part from failure to install its products in accordance with all applicable codes and/or state and local regulations, improper application and/or maintenance.

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