

## CH10, CH20, CH30 CHAMBERS

BMD's CH10 and CH30 chambers are designed to be used with the series LC10 liquid level controller, but may also be used with other types of level switches and controllers. The CH20 can be used with controllers and switches other than the LC10. BMD offers two sizes of horizontal chambers, the CH10 and CH20 as well as a full line of vertical chambers (CH30). The upper dome portion of the CH30, vertical chamber can also be ordered separately for top entry into a vessel.

Chambers offer the benefit of isolating the process fluid from the turbulence of the main vessel making for a more accurate level measurement. They are also an excellent choice for situations where the main vessel's internal geometry may block the direct installation of a level controller. BMD's CH30 vertical chambers are fully customizable to meet many process piping sizes and connections.

### Specifications

#### CH10 and CH20

##### **Sizes:**

Controller Connection: 2" NPT  
 Process Connection: 1" NPT

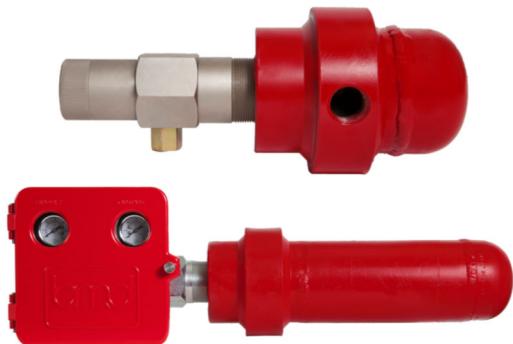
##### **Pressure Rating:**

2000 psi

##### **Materials:**

Carbon Steel or Stainless (Optional)

#### CH20



#### CH10

### How to Order

Example Model No. **CH10-C**

CH10 Series Horizontal Chamber, Carbon Steel, 2" NPT  
 Controller Connection, 1" NPT Process Connection.

<b>CH10</b>	<b>CH20</b>
60-40-0001 - Carbon Steel	60-40-0002 - Carbon Steel
60-40-0033 - Stainless Steel	60-40-0020 - Stainless Steel

Level controllers sold separately.

#### CH30

##### **Sizes:**

Chamber: 3" and 4"  
 Controller Connection: 2" NPT or Flanged  
 Process Connection: 1", 1 1/2" and 2"

##### **Pressure Rating:**

Flanged: Up to 1500 Class

Threaded: 600 Class Standard, Higher Rating Available by Request.

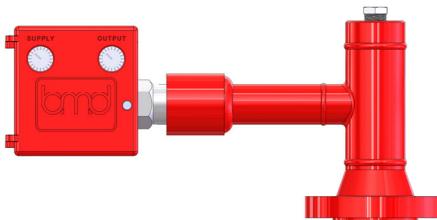
##### **Materials:**

Carbon Steel or Stainless (Optional)

#### CH30

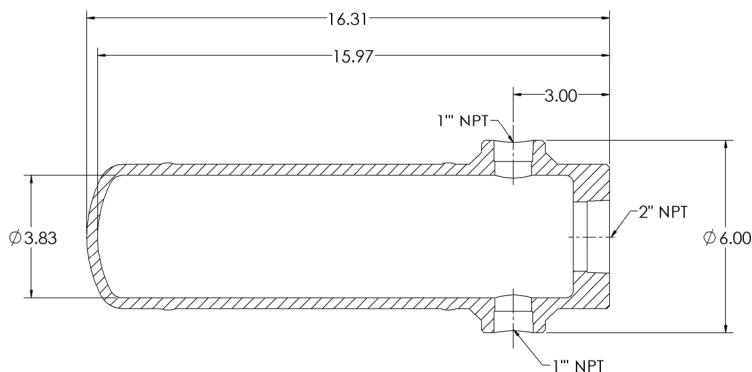


#### CH30 (Dome Only)

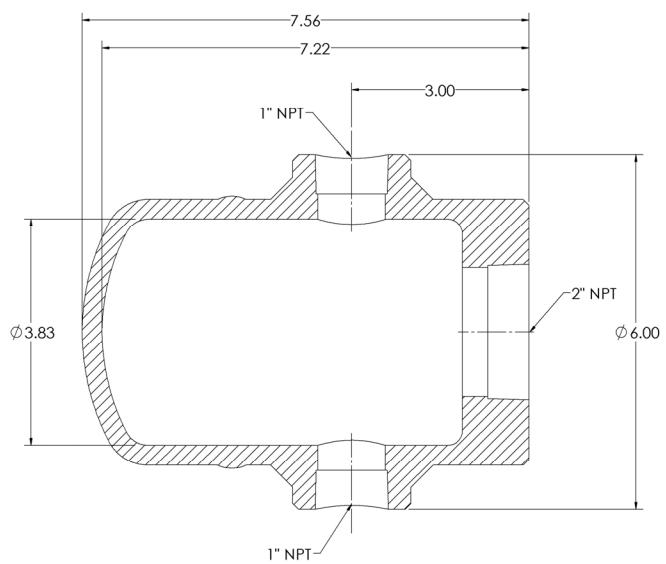


# Dimensions

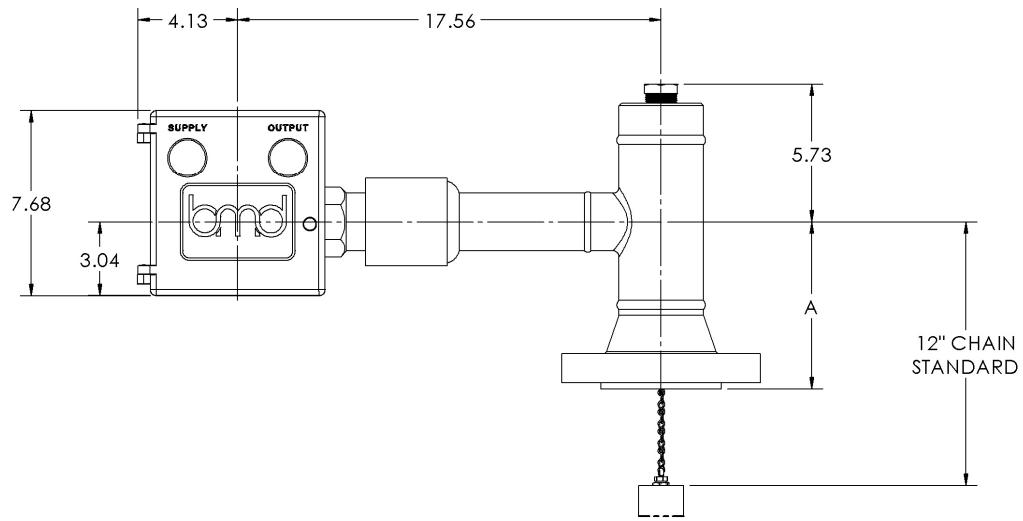
CH10



CH20

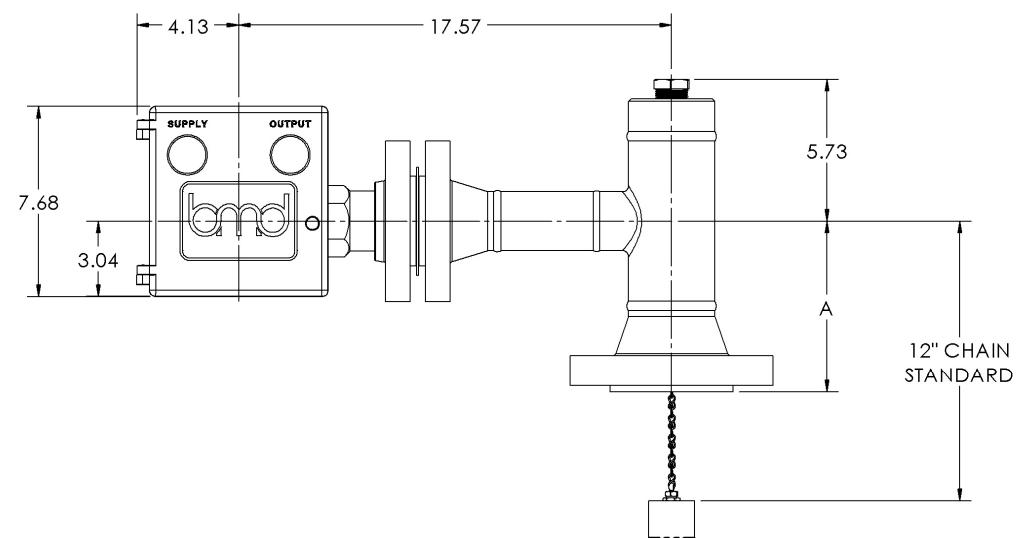


CH30 (NPT Dome Only)



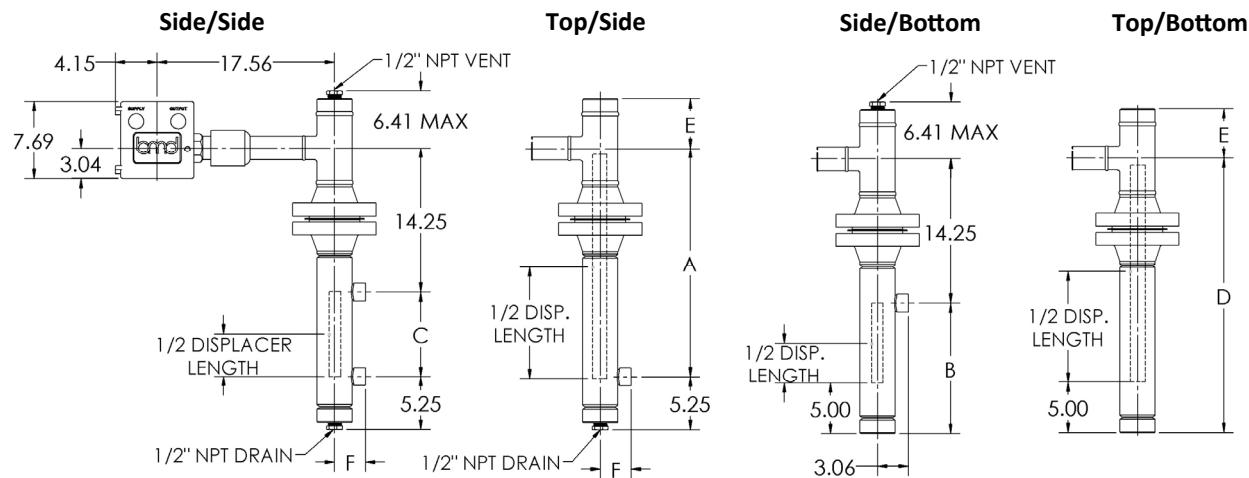
Dimension A		
Flange Class	Dome Size	
	3"	4"
150 RF	6.19	7.19
300 RF	6.56	7.56
600 RF	6.93	8.44
600 RTJ	7.00	8.50
900 RF	7.69	8.94
900 RTJ	7.75	9.00
1500 RF	8.31	9.31
1500 RTJ	8.38	9.38
2500 RF	10.31	11.69
2500 RTJ	10.37	11.75

CH30 (Flanged Dome Only)

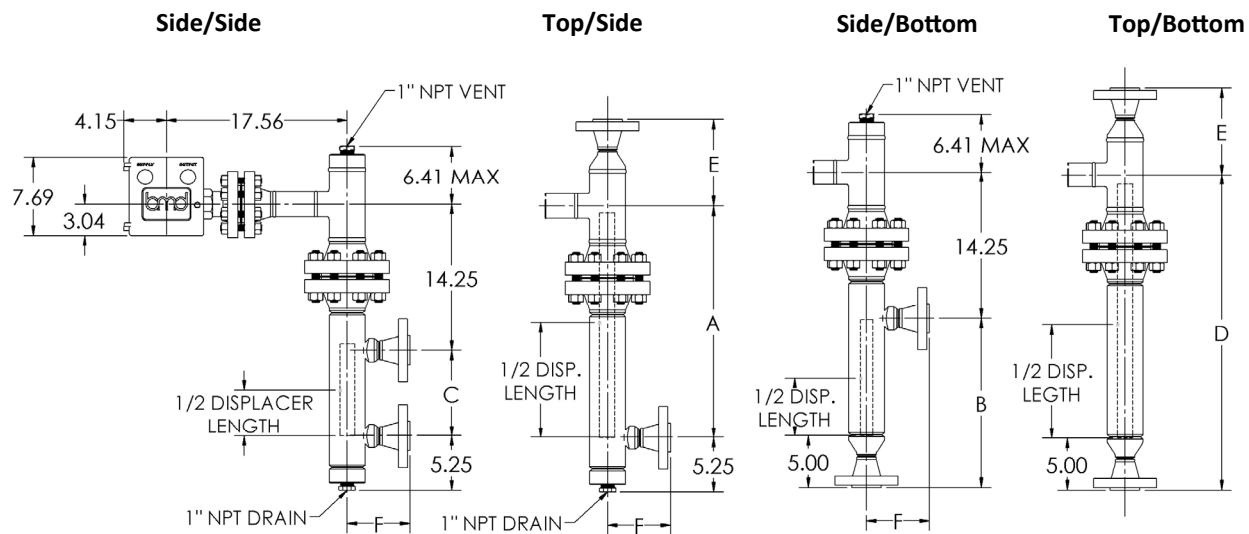


# CH30 Dimensions

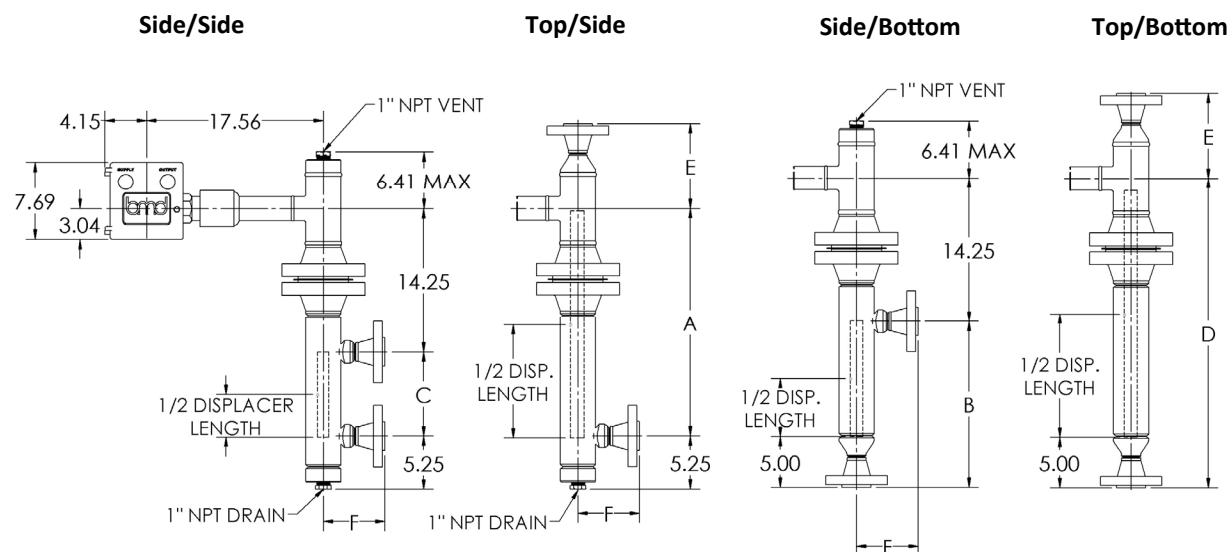
## Threaded Level Controller with Threaded Vessel Connection



## Flanged Level Controller with Flanged Vessel Connection



## Threaded Level Controller with Flanged Vessel Connection



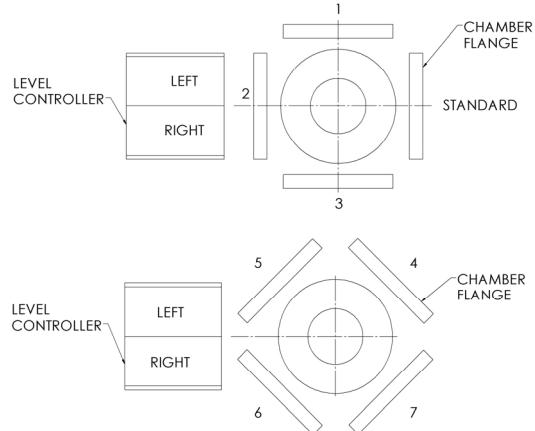
(Flanged Level Controller with Threaded Vessel Connection also available.)

# CH30 Dimensions (continued)

Chamber Size	Vessel Connection			Dimension	
	Type	Size	Rating	E	F
3"	NPT	1"	ALL	4.91"	3.12"
		1 1/2"			3.19"
		2"			3.31"
		1"			3.62"
		1 1/2"		5.72"	3.69"
		2"			3.81"
4"	Flanged	150#	1"	7.10"	Consult Factory
		300#	1"	7.35"	
		600#	1"	7.60"	
		150#	1 1/2"	7.35"	5.62"
		300#	1 1/2"	7.60"	5.88"
		600#	1 1/2"	7.91"	6.19"
		150#	2"	7.41"	5.88"
		300#	2"	7.66"	6.12"
		600#	2"	8.04"	6.5"
		150#	1"	7.91"	Consult Factory
		300#	1"	8.16"	
		600#	1"	8.41"	
		150#	1 1/2"	8.16"	6.12"
		300#	1 1/2"	8.41"	6.38"
		600#	1 1/2"	8.72"	6.69"
		150#	2"	8.22"	6.38"
		300#	2"	8.47"	6.62"
		600#	2"	8.85"	7"

Dimension	Chamber Style	Displacer Length	Dimension
C	Side-Side	14"	14"
		32"	32"
A	Top-Side	14"	15"
		32"	33"
B	Side-Bottom	14"	18"
		32"	36"
D	Top-Bottom	14"	20"
		32"	38"

## Orientation Chart



## How to Order

Example Model No. **CH30-3N30FC1-10N14DD1**

CH30 Series Chamber, 3" Chamber, 2" NPT Level Control Connection, 3" 300 Class RF Flange, Carbon Steel Chamber, A193 B7 Bolts with Stainless-Grafoil Gaskets, 1" NPT Vessel Connections, 14" Displacer Length, Side/Side Chamber Style, Standard Orientation.

Dome only

<b>Chamber Size</b> 2 - 2" (Dome Only)      3 - 3"      4 - 4"	<b>CH30-3 N 30 F C1 - 10 N 14 DD 1</b>		
<b>Level Control Connection</b> N - 2" NPT L.C. Connection      F - 2" Flanged L.C. Connection			
<b>Flange Class</b> 10 - 150      60 - 600      15 - 1500 30 - 300      90 - 900      25 - 2500 (Dome Only)			
<b>Flange Type</b> F - RF Flange      J - RTJ Flange			
<b>Chamber Material</b> C - Carbon Steel      N - Carbon Steel NACE      T - Stainless Steel			
<b>Bolts/Gaskets</b> 1 - A193 B7/Stainless-Grafoil      2 - A193 B7/Inconel-Grafoil (NACE)      3 - A194 B8M/Stainless-Grafoil      4 - A194 B8M/Inconel-Grafoil (NACE)			
<b>Vessel Connection Size</b> 10 - 1"      15 - 1.5"      20 - 2"			
<b>Vessel Connection Type</b> N - NPT      F - RF Flange      J - RTJ Flange			
<b>Displacer Length</b> 14 - 14"      32 - 32"      Length - Other			
<b>Chamber Style</b> DD - Side/Side      DB - Side/Bottom      TD - Top/Side      TB - Top/Bottom			
<b>Orientation (See Chart)</b> Blank - Standard      2      4      6      8 1      3      5      7      9			

Consult factory for custom options.

NOTE:

Level control arm must be 16.44" for proper alignment with CH30.  
Level control arm must be 7.75" for proper alignment with CH10.

Beaumont Manufacturing  
**bmd**  
and Distribution Company  
www.beaumontmanufacturing.com

Phone: 409-225-5863  
Fax: 409-242-1005  
850 Fannin  
Beaumont, Texas 77701  
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