

Folger Coffee Co. Engineering Practice ----- Non- Discretionary For Folger Use Only	DESIGN AND CONSTRUCTION SPECIFICATION COFFEE BEAN CHUTES SS MECHANICAL OD TUBE (RANDOM LENGTHS) CBCA	Revised: 9/17/2020	
FOLGER HAZ. CLASS 3			Page: 1 of 4
FOOD & BEVERAGE	Product Category: Coffee		

CHEMICAL IDENTIFICATION

Chemical Abstract CAS#: Not available at time of publication
 Common Name(s): Air / Coffee Beans
 Chemical Name: Air [With Coffee Beans Entrained]
 Chemical Formula: Not available at time of publication

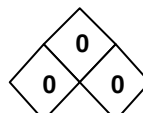
PHYSICAL PROPERTIES

Freeze Point: 32 F
 Boiling Point: 212 F
 Flash Point - Open/Closed Cup: Not available at time of publication
 Autoignition Temp: Not available at time of publication
 Specific Gravity: 1.0 @ 70 F
 Liquid Viscosity (Cp): 1.0 @ 70 F
 Vapor Pressure (psig, mmHg): 0.94 @ 100 F; 11.5 @ 200 F
 Specific Heat: (Liquid / Vapor): 1 BTU/lb F
 Physical State: Gas
 Composition / Concentration: Air, trace water
 Comments: None

HEALTH / SAFETY / ENVIRONMENTAL

NFPA / Folger Hazard Rating:

FLAMMABILITY



Folger Hazard Class per HSE CBA GGC105:

Health Concerns:

Safety Shower / Eyewash Station per HSE DP GID090:

MSDS:

Safety Concerns:

References:

Environmental Concerns:

Line Identification per HSE DP GID105:

Process Safety Hazard/Concern:

Comments:

HEALTH

3

None

None

None

None

None

None

None

Color - Background: Blue Letters: White

Standard Overpressure / Vacuum

None

REACTIVITY

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PIPING SYSTEM CONSIDERATIONS

Overheating:	Evaporation / Water Vapor	
Overcooling:	Condensation, Freezing Condensate	
Design Rating:	30 psig @ Max Temp of 300 F	
Limit:	Jacob Throttling Valve	
Corrosion Allowance:	None	
Reference:	PCS-101	General Piping Construction Specificationm
	PCS-150	Pressure Testing of Installed Piping Systems
Previously used spec's:	N/A	
Joints:	3.14" – 24.75" mechanical joint [clamps]	
Thread Compound:	Bolts - Graphite in SAE 50 Oil	
Tracing:	Not required	
Insulation:	Not required	
Cover:	Not required	
Startup Cleaning:	Not required	
Leak Test:	Service (ASME B31.3, Section 345)	
Air Drying:	Not required	

Comments: None

WELDING

Welding Procedures:

Vendor and Contractor Welders shall use their company welding practices for all welding of piping system. These procedures must be approved by a Folger Welding Owner prior to use.

Folger welders are to use Folger welding procedures. These can be found in the Folger Welding Manual. Use WPM 11-2 and WPM 11-3 for guidance in selecting which Welding Procedure Specification (WPS) / Welding Data Sheet (WDS) combination to use.

Examination and Inspection Requirements:

Examine a sufficient number of welds to ensure conformance to local codes, such as ANSI B31.1 and B31.3, as well as the applicable Fluid Construction Specifications (FCS).

The quality of completed welds shall meet the minimum requirements of the applicable code and shall present a good visual appearance. Welds must be smooth, uniform, without excessive reinforcement, undercut, porosity, or root concavity. All slag, spatter, etc., Must be removed from the completed welds.

Many codes require exams in addition to visual, such as spot or random radiography.

Witness pressure testing of piping. Pressure testing shall include the examination of all joints (with insulation off) for leakage, as well as examination of the pressure gage/chart.

All mandatory exams and tests must be performed and documented.

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PIPING COMPONENTS

DESIGN NOTES	COMMODITY CODE	SIZE RANGE/ SMALL END	LARGE END (IF REQD)	DESCRIPTION	REFERENCE
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***** VALVES *****

VQ540JA	3.14 - 11.79	THROTTLING VALVE JACOB TUBE FLARED ENDS	JACOB
VH852JA	3.14 - 11.79	SLIDE GATE 150# JACOB TUBE FLARED ENDS	JACOBS

**** PIPING IN MILLIMETERS ****

487

488

5720010	3.94 - 24 3/4	TUBE 2MM SS FLARED 2000MM (78.74") LONG	JACOB
5720011	3.94 - 24 3/4	TUBE 2MM SS FLARED 1000MM (39.37") LONG	JACOB
5720012	3.94 - 24 3/4	TUBE 2MM SS FLARED 500MM (19.68") LONG	JACOB
5720013	3.94 - 15 3/4	TUBE 2MM SS FLARED 200MM (7.87") LONG	JACOB
5720014	3.94 - 11.79	TUBE 2MM SS FLARED 50MM (1.97") LONG	JACOB
5720015	3.94 - 24 3/4	TUBE 2MM SS FLARED USER DEFINED LENGTH	JACOB

486

***** BENDS *****

5720082	03.94 - 24 3/4	BEND 30 DEG 2 DIA 2MM THK SS FLARED	JACOB
5720083	03.94 - 24 3/4	BEND 45 DEG 2 DIA 2MM THK SS FLARED	JACOB
5720084	03.94 - 24 3/4	BEND 60 DEG 2 DIA 2MM THK SS FLARED	JACOB
5720085	03.94 - 24 3/4	BEND 90 DEG 2 DIA 2MM THK SS FLARED	JACOB
5720086	03.94 - 11.79	BEND 90 DEG 5 DIA 2MM THK SS FLARED	JACOB

***** FITTINGS *****

5720140	3.94 - 24 3/4		TEE 2MM THK SS FLARED	JACOB
5720150	3.94 - 24 3/4		LATERAL 30 DEG 2MM THK SS FLARED	JACOB
5720155	3.14 - 13 3/4	3.94 - 15 3/4	RED LATERAL 30 DEG 50/50 2MM SS FLARED	JACOB
5720160	3.94 - 24 3/4		LATERAL 45 DEG 2MM THK SS FLARED	JACOB
5720170	3.94 - 24 3/4		WYE 90 DEG 2MM THK SS FLARED	JACOB
5720175	3.94 - 15 3/4	4.72 - 19.69	REDUCING WYE 60 DEG 2MM THK SS FLARED	JACOB
5720190	3.94 - 22	4.72 - 24 3/4	REDUCER CONCENTRIC 2MM THK SS FLARED	JACOB
5720200	3.14 - 24 3/4		BLANK 19GA SS FLARED	JACOB
5720250	3.14 - 11.79		PULL RING SS FOR 2MM TUB W/BLT SLCN GASK	JACOB
5720192	3.14 - 11.79	3 - 12	ADAPTER NOM PIPE TO OD TUBE	JACOB

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DESIGN NOTES

NOTE: AVAILABILITY OF 2mm THICK FITTINGS TO BE CONFIRMED WITH MANUFACTURER DURING DESIGN.

- 486 BENDS ABOVE 400 MM = 14.75" ARE WELDED FROM SEGMENTS
- 487 NOMINAL TUBE DIAMETERS OBTAINED BY CONVERSION FROM METRIC AS FOLLOWS:
- 80 MM = 3.14"(SIZE NOT AVAILABLE)
 - 100 MM = 3.94"
 - 120 MM = 4.72"
 - 140 MM = 5.5" (SIZE NOT AVAILABLE)
 - 150 MM = 5.91"
 - 175 MM = 6.89"
 - 200 MM = 7.85"
 - 224 MM = 8.84" (SIZE NOT AVAILABLE)
 - 250 MM = 9.82"
 - 300 MM = 11.79"
 - 350 MM = 13.75"
 - 400 MM = 15.7 5"
 - 500 MM = 19.69"
 - 560 MM = 22"
 - 630 MM = 24.75"
- 488 NOMINAL TUBE LENGTHS OBTAINED BY CONVERSION FROM METRIC AS FOLLOWS:
- 2000 MM = 78.74"
 - 1000 MM = 39.37"
 - 500 MM = 19.68"
 - 200 MM = 7.87"
 - 50 MM = 1.97"

BRANCH CHART

NOT APPLICABLE – Use fabricated fittings based on clamps w/flared end pipe.