

DIMENSIONS & DATA CERTIFIED FOR:

Representative:

Order:

Customer:

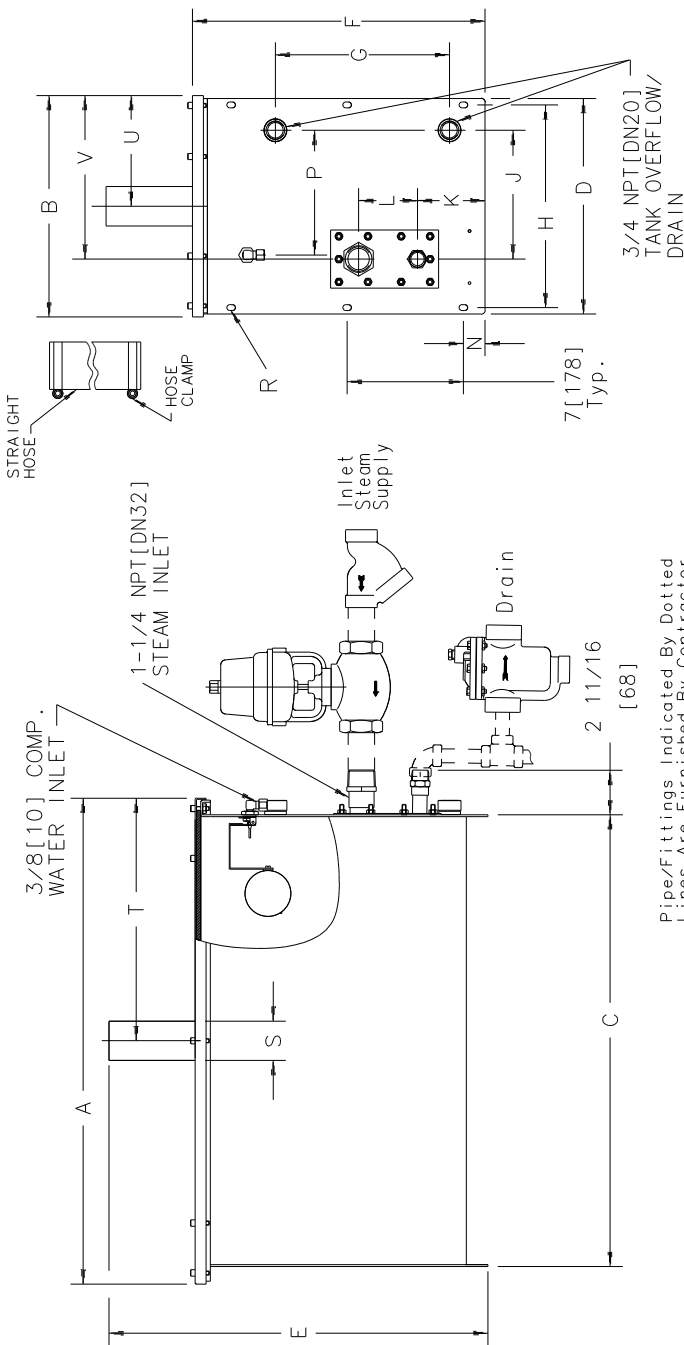
Order:

Project:

Requirements:

By:

Date



NAME OF PART	MATERIAL
Tank & Lid	T304 Stainless Steel
Heat Exchanger	T304 S.S. (SF & DI Models) Copper, Electroless Nickel Plate (CF Models)
Cap Screws & Nuts, Tank	Carbon Steel, Zinc Plated
Float Assembly	T304 Stainless Steel
Dispersion Tube	
Valve, Float Assembly	EPDM
Hose Cuffs	NBR (Buna-N)
Gasket, Inlet	SI (Silicone)
Gasket, Tank	To Be Specified
Control Valve(Type)	ASTM A48 CL. 30 W/ 18-8 SS Internals
Steam Trap (IB)	ASTM A48 CL. 30 W/SS Screen
Strainer	

TECHNICAL INFORMATION

DESCRIPTION	MODELS; CS-11SF, CS-11CF & CS-11DI
A Length, Overall	29-5/16 [643]
B Width, Overall	13-3/8 [340]
C Length, Bottom Of Tank	27-1/4 [692]
D Width, Tank	13 [330]
E Tank Bottom To Steam Outlet	22-7/8 [581]
F Tank Bottom To Top Of Lid	17-5/8 [448]
G ϕ Of Overflow To Drain	8-1/2 [216]
H Width, ϕ Tank Flange Holes	12-1/4 [311]
J ϕ Of Drain To ϕ Cond. Outlet	7-3/4 [197]
K ϕ Return Line To Tank Bottom	4-3/32 [104]
L ϕ Return Line To ϕ Steam Inlet	3-1/2 [89]
N Tank Bottom To 1st Flange Hole	1-3/16 [29]
P ϕ Water Supply To Tank Overflow	7-1/2 [191]
R # Of Tank Flange Holes(Both Ends)	12, 5/16 x 1/2 [8 x 13]
S Dia. Of Steam Outlet	2-3/8 [60]
T ϕ Steam Outlet To End Of Lid	14-5/8 [371]
U ϕ Steam Outlet To Edge Of Lid	6-11/16 [170]
V ϕ Steam Inlet To Edge Of Lid	9-7/8 [251]

DESIGN INFORMATION

Weight, lbs[kg]	Max. Operating	215 [98]
(Less Trap, Strainer & Control Valve)	Shipping	100 [45]

Dimensions in inches [mm] unless otherwise shown.

Armstrong International, Inc.
 Three Rivers Division
 Three Rivers, MI 49093
 (269) 273-1415 Fax(269) 278-6555
 Posted on Armstrong's homepage www.armstrong-intl.com

Product	CD No.	Date
HUMIDIFIER STEAM TO STEAM CS-11 Series	1081	10/26/06
	Rev; E	By; Paul G.

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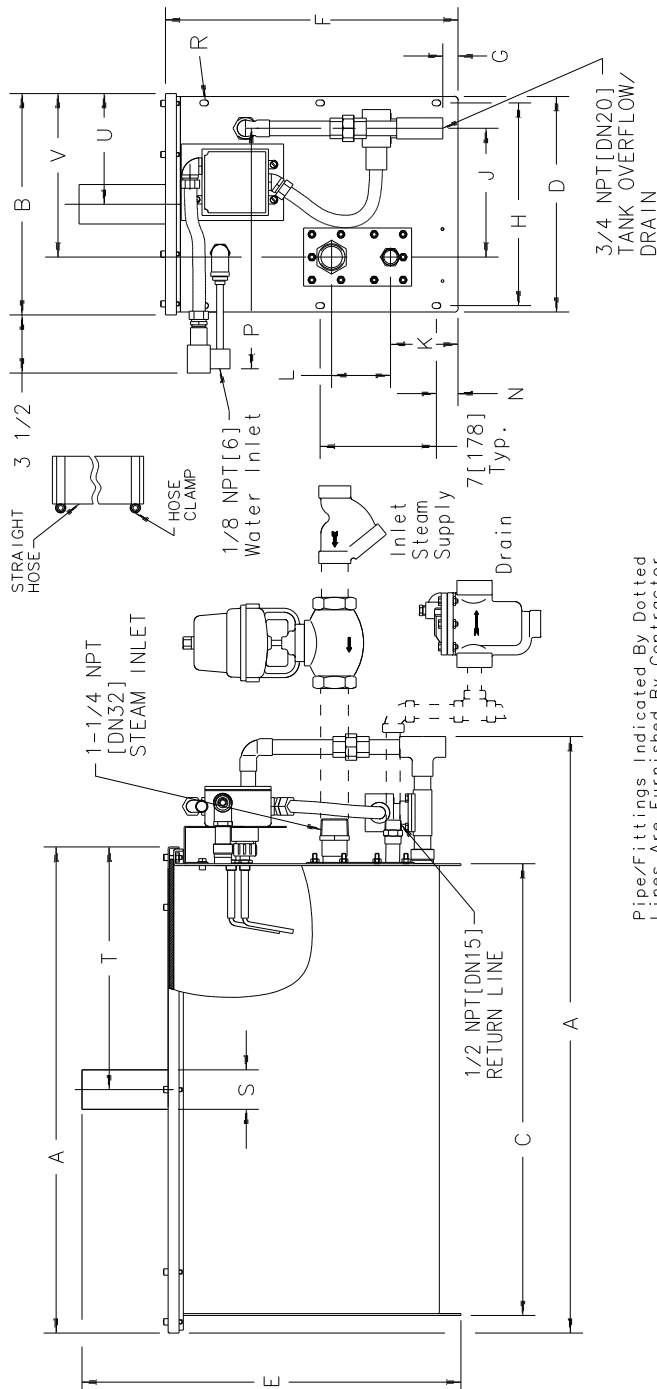
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Pipe/Fittings Indicated By Dotted Lines Are Furnished By Contractor

NAME OF PART	MATERIAL
Tank & Lid	T304 SS
Heat Exchanger	T304 SS (CS-11S & CS-11SB) Copper, Electroless Nickel Plated(CS-11C & CS-11CB)
Cap Screws & Nuts, Tank	Carbon Steel, Zinc Plated
Level Control Electrodes	18-8 SS & Teflon
Dispersion Tube	T304 SS
Control Panel (Not Shown)	NEMA 12 Enclosure(ABS Plastic)
Hose Cuffs	EPDM
Gasket, Inlet	NBR (Buna-N)
Gasket, Tank	SI (Silicone)
Control Valve(Type)	To Be Specified
Steam Trap (1B)	ASTM A48 CL. 30 W/ 18-8 SS Internals
Strainer, 'Y'	ASTM A48 CL. 30 W/ T304 Screen
Ionic Bed Material	Inert Fiber
Ionic Bed Frame	T304 SS

TECHNICAL INFORMATION

DESCRIPTION	MODELS; CS-11SB & CS-11CB
A Length, Overall	36 [914]
B Width, Overall	13-3/8 [340]
C Length, Bottom Of Tank	27-1/4 [692]
D Width, Tank	13 [330]
E Tank Bottom To Steam Outlet	22-7/8 [581]
F Tank Bottom To Top Of Lid	17-5/8 [448]
G ϕ Of Overflow To Drain	15/16 [24]
H Width, ϕ Tank Flange Holes	12-1/4 [311]
J ϕ Of Drain To ϕ Cond. Outlet	7-3/4 [197]
K ϕ Return Line To Tank Bottom	4-3/32 [104]
L ϕ Return Line To ϕ Steam Inlet	3-1/2 [89]
N Tank Bottom To 1st Flange Hole	1-3/16 [29]
P ϕ Water Supply To Tank Overflow	13-7/8 [352]
R # Of Tank Flange Holes(Both Ends)	12, 5/16 x 1/2 [8 x 13]
S Dia. Of Steam Outlet	2-3/8 [60]
T ϕ Steam Outlet To End Of Lid	14-5/8 [371]
U ϕ Steam Outlet To Edge Of Lid	6-11/16 [170]
V ϕ Steam Inlet To Edge Of Lid	9-7/8 [251]

DESIGN INFORMATION

Weight, lbs[kg]	Max. Operating	215 [98]
(Less Trap, Strainer & Control Valve)	Shipping	100 [45]

Dimensions in inches [mm] unless otherwise shown.

Armstrong International, Inc.
 Three Rivers Division
 Three Rivers, MI 49093
 (269) 273-1415 Fax(269) 278-6555
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Product	CD No.	Date
HUMIDIFIER STEAM TO STEAM CS-11 Series	1081 Sht. 2	10/27/06
Rev; E	By; Paul G.	

CS-11 Steam Capacity Ratings

Steam Pressure psig [bar]	Model Output lbs/hr [kg/hr]	
	CS-11S/DI (SS Coil)	CS-11C (Copper Coil)
2 [.14]	2 [.9]	3 [1.4]
5 [.34]	10 [4.5]	30 [13.6]
10 [.69]	30 [14]	65 [30]
13 [.90]	33 [15]	92 [42]
15 [1] Max.	35 [16]	110 [50]

Capacities Based On Supply Pressure
Before The Control Valve

OPTION LIST

Humidistat	Control (Room or Duct)	<input type="checkbox"/>
	High Limit	<input type="checkbox"/>
Air Flow	Pressure Switch	<input type="checkbox"/>
Dispersion Tube		<input type="checkbox"/>
Support Legs		<input type="checkbox"/>
Insulation, Tank		<input type="checkbox"/>
Humidipack		<input type="checkbox"/>

STANDARD OPERATORS

Type	Model & Manufacturer	Control Signal
Pneumatic	HAM Honeywell MP953D	Operating Range, 4-11 psi Standard 8-13 psi 3-7 psi
	HAM Honeywell MP953F	Adjustable Start Point Standard Range, 5 psi (Has Pilot Positioner) Optional Range, 10 or 3 psi
Electric	HEM Honeywell M9182A	0-135 ohm Standard; 4-20 mA w/A9847 & 2-10 VDC w/ Optional Module A10024
	BLEM Belimo AF24SR	0-10 VDC, 4-20 mA
	BNVEM Belimo NVF24	

SELECTING PROPER DISPERSION TUBE

Model CS-14	Length "L" in [mm]	Duct Width		Weight lb/hr [kg/hr]
		Min.	Max.	
DL-1	12 [305]	11 [279]	16 [406]	2.7 [1.2]
DL-1.5	18 [457]	17 [432]	22 [559]	3.4 [1.5]
DL-2	24 [610]	23 [584]	34 [864]	4 [1.8]
DL-3	36 [914]	35 [889]	46 [1168]	6 [2.7]
DL-4	48 [1219]	47 [1194]	58 [1473]	8 [3.6]
DL-5	60 [1524]	59 [1499]	70 [1778]	10 [4.5]
DL-6	72 [1829]	71 [1803]	82 [2083]	12 [5.4]
DL-7	84 [2134]	83 [2108]	94 [2388]	14 [6.4]
DL-8	96 [2438]	95 [2413]	106 [2692]	16 [7.3]
DL-9	108 [2743]	107 [2718]	118 [2997]	18 [8.2]
DL-10	120 [3048]	119 [3023]	130 [3302]	20 [9.1]

