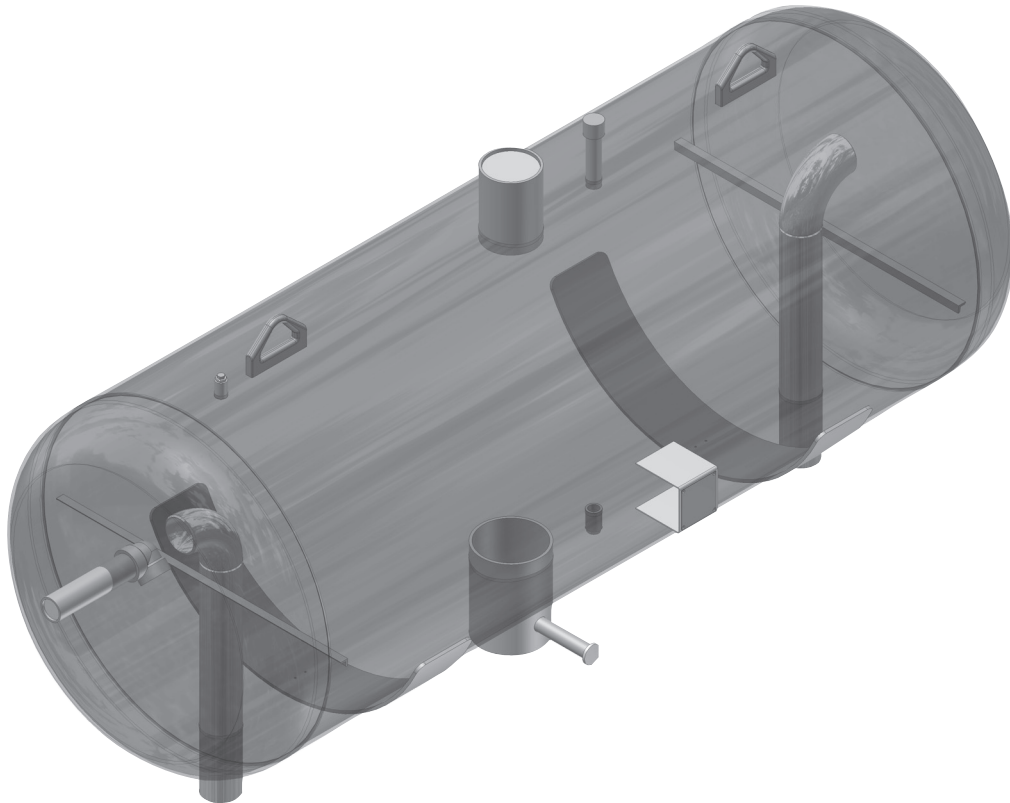
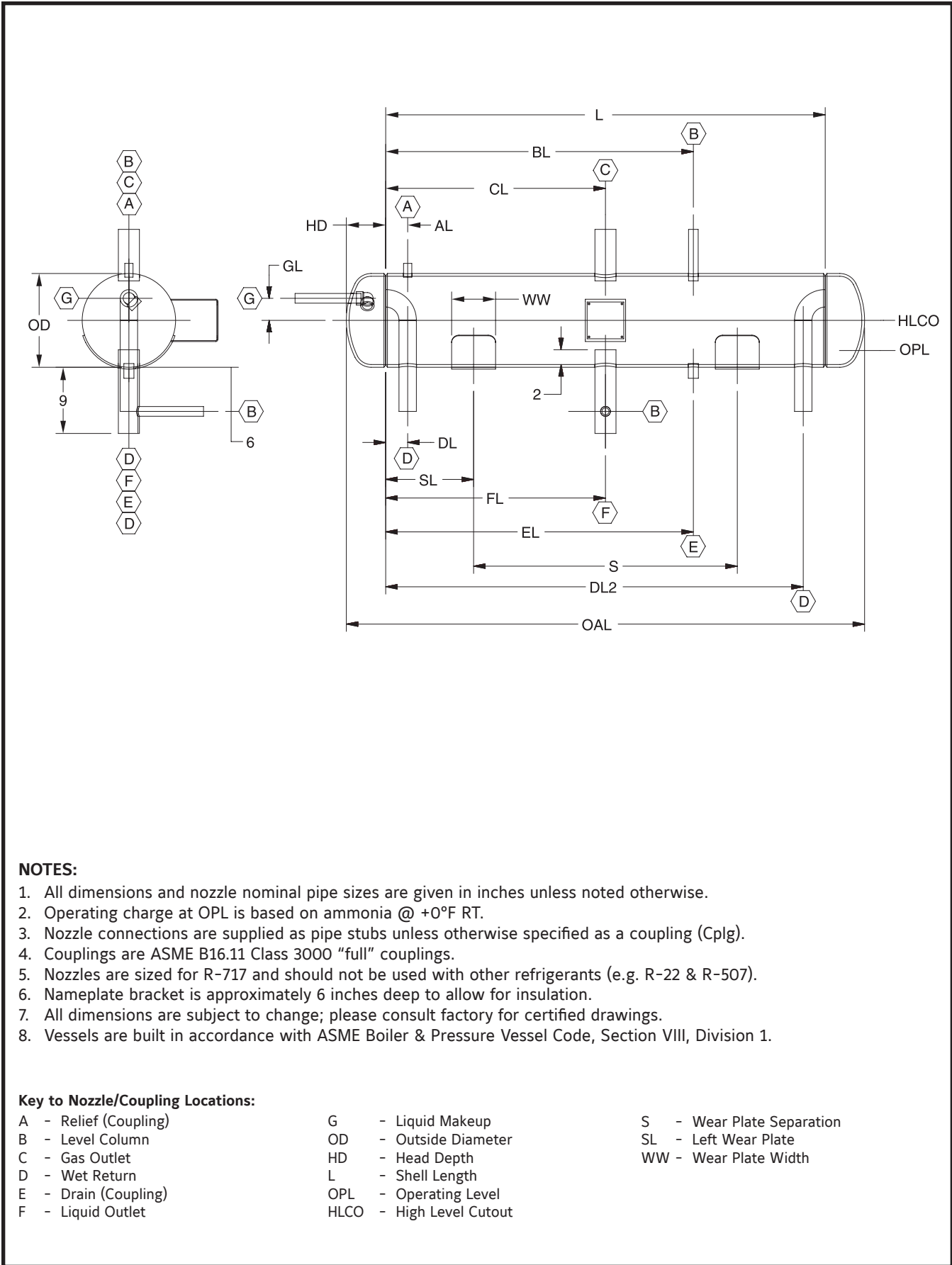


HORIZONTAL SURGE DRUM Dual Flow





NOTES:

1. All dimensions and nozzle nominal pipe sizes are given in inches unless noted otherwise.
2. Operating charge at OPL is based on ammonia @ +0°F RT.
3. Nozzle connections are supplied as pipe stubs unless otherwise specified as a coupling (Cplg).
4. Couplings are ASME B16.11 Class 3000 "full" couplings.
5. Nozzles are sized for R-717 and should not be used with other refrigerants (e.g. R-22 & R-507).
6. Nameplate bracket is approximately 6 inches deep to allow for insulation.
7. All dimensions are subject to change; please consult factory for certified drawings.
8. Vessels are built in accordance with ASME Boiler & Pressure Vessel Code, Section VIII, Division 1.

Key to Nozzle/Coupling Locations:

A - Relief (Coupling)	G - Liquid Makeup	S - Wear Plate Separation
B - Level Column	OD - Outside Diameter	SL - Left Wear Plate
C - Gas Outlet	HD - Head Depth	WW - Wear Plate Width
D - Wet Return	L - Shell Length	
E - Drain (Coupling)	OPL - Operating Level	
F - Liquid Outlet	HLCO - High Level Cutout	

Figure 1. Data and Dimensions

HORIZONTAL SURGE DRUM CAPACITIES R-717 ⁽¹⁾

Model Number	Operating Temperature										
	Two Stage ⁽²⁾				Single Stage ⁽³⁾						
	-50°F	-40°F	-30°F	-20°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
HSDD-12-72	16.7	19.4	22.2	25.3	22.0	24.9	28.0	31.3	34.8	38.6	42.4
HSDD-16-84	27.0	31.3	35.9	40.9	35.5	40.2	45.3	50.6	56.3	62.3	68.5
HSDD-20-86	43.1	49.9	57.2	65.1	56.6	64.1	72.1	80.6	89.6	99.2	109.0
HSDD-24-88	62.9	72.7	83.4	95.0	82.6	93.5	105.0	118.0	131.0	145.0	159.0
HSDD-30-113	99.5	115.0	132.0	150.0	131.0	148.0	167.0	186.0	207.0	229.0	252.0
HSDD-36-116	144.0	167.0	192.0	218.0	190.0	215.0	242.0	270.0	301.0	333.0	366.0
HSDD-42-119	198.0	229.0	263.0	299.0	260.0	294.0	331.0	370.0	412.0	456.0	502.0
HSDD-48-122	257.0	297.0	341.0	388.0	338.0	382.0	430.0	481.0	534.0	591.0	651.0
HSDD-54-125	367.0	425.0	487.0	555.0	483.0	546.0	615.0	687.0	764.0	845.0	930.0
HSDD-60-128	455.0	526.0	604.0	688.0	598.0	677.0	762.0	851.0	947.0	1,047.0	1,153.0

1. Capacities are given in tons of refrigeration, (R-717)
2. Two-stage capacities based on +35°F liquid feed temperature.
3. Single-stage capacities based on +95°F liquid feed temperature.

DIMENSIONAL DATA

Model Number	MAWP	OD	OAL	HD	L	Uninsulated Dry Wt (lbm)	R-717 Operating Charge (lbm) ⁽²⁾	Wt (lbm) w/Max Charge	Surge Vol. (cu-ft)	OPL	HLCO	A†	B†
HSDD-12-72	300	12¾	72	6	60	350	46.5	450	1.10	4	6¾	1/2	1
HSDD-16-84	300	16	84¼	6⅞	72	350	67.5	540	2.80	4	8	1/2	1
HSDD-20-86	300	20	86¾	7¾ ₁₆	72	660	73.3	950	5.17	4	10	1/2	1
HSDD-24-88	300	24	88¾	8¾ ₁₆	72	810	82.0	1,240	8.31	4	12	1/2	1
HSDD-30-113	250	30	113¾	9 ¹¹ / ₁₆	94	1,310	118.9	2,180	18.07	4	15	3/4	1¼
HSDD-36-116	250	36	116¾	11¾ ₁₆	94	1,610	132.3	2,900	27.79	4	18	3/4	1¼
HSDD-42-119	250	42	119¾	12 ¹¹ / ₁₆	94	1,920	144.5	3,710	39.72	4	21	3/4	1¼
HSDD-48-122	250	48	122½	14¼	94	3,000	147.5	5,370	53.50	4	24	3/4	1¼
HSDD-54-125	250	54	125½	15¾	94	3,450	157.8	6,510	70.02	4	27	3/4	1½
HSDD-60-128	250	60	128½	17¼	94	3,930	167.5	7,790	89.03	4	30	3/4	1½

Model Number	Nozzle/ Coupling NPS† ⁽³⁾⁽⁴⁾⁽⁵⁾					AL	BL	CL	DL	DL2	EL	FL	GL	S	SL	WW
	C	D (2X)	E	F	G											
HSDD-12-72	2½	2	1	2½	1	3	42	30	3	57	42	30	3	36	12	6
HSDD-16-84	3	2	1	3	1¼	3	48	36	3	69	48	36	3	48	12	6
HSDD-20-86	4	2½	1	4	1½	4	48	36	4	68	48	36	3	44	14	6
HSDD-24-88	4	2½	1	4	2	4	48	36	4	68	48	36	3	44	14	6
HSDD-30-113	5	3	1	5	2	4	59	47	4	90	59	47	4	62	16	6
HSDD-36-116	6	4	1	6	2½	5	59	47	5	89	59	47	4	58	18	8
HSDD-42-119	6	4	1	8	2½	5	59	47	5	89	59	47	6	58	18	8
HSDD-48-122	8	6	1	8	3	6	59	47	6	88	59	47	6	54	20	8
HSDD-54-125	8	6	1	8	3	6	59	47	6	88	59	47	6	54	20	8
HSDD-60-128	8	6	1	10	4	6	59	47	6	88	59	47	6	54	20	8

† Nozzle/ Coupling NPS (see footnotes 3, 4, 5)

Q-NET™ network technology...

Connect Your PC
with QUANTUM™LX!

*Take full advantage of Q-NET™
technology with all Frick products!*



System integration is what we do...

- Q-NET™... supports open-protocols for SCADA systems (i.e. Allen-Bradley® DF1, Modbus RTU, Modbus ASCII, and Industrial Ethernet Protocols)
- Q-NET™... connects instantly for local or remote access; no software required
- Q-NET™... can be applied to both new and existing systems
- Q-NET™ means precise control 24 hours a day, seven days a week
- Q-NET™ distributed architecture mean faster, easier, economical installations
- Q-NET™ delivers increased operating efficiency and lowers energy costs

Available on Frick screw compressors, condensers, evaporators, AcuAir® hygienic air handlers, and refrigerant vessels.

Form 120-410 SED (2007-02)
Supersedes: E120-410 SED (2004-10)
Subject to change without notice
Published in USA · GUI 1C

© 2009 Johnson Controls Inc. - ALL RIGHTS RESERVED



JOHNSON CONTROLS
100 CV Avenue · P.O. Box 997
Waynesboro, PA 17268-0997 USA
Phone: 717-762-2121 · FAX: 717-762-8624
www.johnsoncontrols.com