

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
1	Control Valve	RU0001A-LCV-01, RU0001B-LCV-01	2	1"	CL 300, A352 LCB / LCC, Pneumatic Piston Spring Return L-ACT 25
2	BALL VALVE	RBL-RU0001A01, RBL-RU0001B01	2	20mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
3	BALL VALVE	FBB-RU0001A07, FBB-RU0001B07	2	40mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
4	BALL VALVE	FBB-RU0001A06, FBB-RU0001B06	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
5	BALL VALVE	FBB-RU0001A01, FBB-RU0001B01	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
6	BALL VALVE	RBL-RU0001A07, RBL-RU0001B07	2	15mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
7	BALL VALVE	RBL-RU0001A29, RBL-RU0001B29	2	25mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
8	BALL VALVE	RBL-RU0001A32, RBL-RU0001B32	2	25mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
9	BALL VALVE	FBB-RU0001A02, FBB-RU0001B02	2	40mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
10	BALL VALVE	FBB-RU0001A03, FBB-RU0001B03	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
11	BALL VALVE	RBL-RU0001A05, RBL-RU0001B05	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
12	BALL VALVE	RBL-RU0001A06, RBL-RU0001B06	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
13	BALL VALVE	RBL-RU0001A02, RBL-RU0001B02	2	20mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
14	BALL VALVE	RBL-RU0001A03, RBL-RU0001B03	2	25mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
15	BALL VALVE	RBL-RU0001A04, RBL-RU0001B04	2	25mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
16	BALL VALVE	RBL-RU0001A41, RBL-RU0001B41	2	40mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
17	BALL VALVE	RBL-RU0001A42, RBL-RU0001B42	2	20mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
18	BALL VALVE	RBL-RU0001A43, RBL-RU0001B43	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
19	BALL VALVE	RBL-RU0001A08, RBL-RU0001B08	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
20	BALL VALVE	RBL-RU0001A44, RBL-RU0001B44	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
21	BALL VALVE	RBL-RU0001A09, RBL-RU0001B09	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
22	BALL VALVE	RBL-RU0001A10, RBL-RU0001B10	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
23	BALL VALVE	RBL-RU0001A61, RBL-RU0001B61	2	50mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
24	BALL VALVE	RBL-RU0001A47, RBL-RU0001B47	2	20mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
25	BALL VALVE	RBL-RU0001A45, RBL-RU0001B45	2	15mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, Flanged End R/F CL300,
26	BALL VALVE	RBL-RU0001A45, RBL-RU0001B45	2	15mm	A351 CF8M (SS316), Ball/Stem: SS316 Seat: PTFE, NPT Thread End
27	Needle valve	NV-RU0001A03, NV-RU0001B03	2	1/2"	Thraded 3000#, Refrigerant Liquid
28	Needle valve	NV-RU0001A04, NV-RU0001B04	2	1/2"	Thraded 3000#, Refrigerant gas
29	Needle valve	NV-RU0001A05, NV-RU0001B05	2	3/8"	Thraded 3000#, Lube Oil
30	LG	LG-RU0001A-02, LG-RU0001B-02	2	2"	Reflex LG R100-RAV947/1, C to C 762 mm, Visible Length 433 mm,
31	Tray		48		Tray H50 x W50 , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
32	Tray		30		Tray H50 x W100 , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
33	Elbow		4		Vertical Elbow 50 x 50 outside 90 <sup>0</sup> , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
34	Elbow		6		Horizontal Elbow 50 x 50, 90 <sup>0</sup> , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
35	Elbow		4		Vertical Elbow 100 x 100 inside 90 <sup>0</sup> , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
36	Elbow		6		Horizontal Elbow 100 x 100, 90 <sup>0</sup> , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
37	Elbow		6		Horizontal Elbow 100 x 100, 45 <sup>0</sup> , Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
38	TEE		3		Reduced TEE 100 x 100 x 50, Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized
39	TEE		3		Equal TEE 100 x 100 x 100, Thickness 1.5 mm, Cover Carbon Steel, Hot Dip Galvanized

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
40	Flange WN	-	6	½"	FLANGE WN, SCH80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
41	Flange WN	-	8	¾"	FLANGE WN, SCH 80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
42	Flange WN	-	6	6"	FLANGE WN, SCH 80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
43	Flange WN	-	72	2"	FLANGE WN, SCH80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
44	Flange WN	-	10	1½"	FLANGE WN, SCH80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
45	Flange WN	-	6	3"	FLANGE WN, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
46	Flange WN	-	2	2"	FLANGE WN, 300 LB, RF, ASME B16.5, ASTM A105N
47	Flange WN	-	2	3"	FLANGE WN, 300 LB, RF, ASME B16.5, ASTM A105N
48	Flange WN	-	10	4"	FLANGE WN, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
49	Flange WN	-	24	1"	FLANGE WN, SCH80, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
50	Flange SW	-	6	¾"	FLANGE SW, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
51	Flange SW	-	26	1½"	FLANGE SW, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
52	Flange SW	-	8	1"	FLANGE SW, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
53	Flange SW	-	2	½"	Flange SW, 150 LB, RF, ASME B16.5, ASTM 182 GR F304
54	Blind Flange	-	6	½"	FLANGE , 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
55	Blind Flange	-	2	¾"	FLANGE , 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
56	Blind Flange	-	10	¾"	FLANGE BLIND, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
57	Blind Flange	-	4	3"	FLANGE BLIND, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
58	Blind Flange	-	12	1"	FLANGE BLIND, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
59	Blind Flange	-	10	2"	FLANGE BLIND, 300 LB, RF, ASME B16.5, ASTM A350 GR LF2
60	Blind Flange	-	2	2"	FLANGE BLIND, THD 300 LB, RF, ASME B16.5, ASTM A182 GR F304

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
61	Blind Flange	-	4	½"	Flange Blind, THD 300 LB, RF, ASME B16.5, ASTM A182 GR F304
62	Blind Flange	-	2	½"	Flange Blind, 150 LB, RF, ASME B16.5, ASTM A182 GR F304
63	Blind Flange	-	2	¾"	Flange Blind, THD 300 LB, RF, ASME B16.5, ASTM A182 GR F304
64	Gasket	-	12	½"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
65	Gasket	-	16	¾"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
66	Gasket	-	4	5"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
67	Gasket	-	10	6"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
68	Gasket	-	60	2"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
69	Gasket	-	28	1½"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
70	Gasket	-	6	3"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
71	Gasket	-	6	4"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
72	Gasket	-	30	1"	GASKET, SWG, 1/8" THK, RF, 300 LB, ASME B16.20, SS/GRAPHITE
73	Gasket	-	4	½"	GASKET, SWG, 1/8" THK, RF, 150 LB, ASME B16.20, SS/GRAPHITE
74	Elbow	-	4	6"	ELBOW 90 LR, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
75	Elbow	-	64	2"	ELBOW 90 LR, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
76	Elbow	-	22	1½"	ELL 90, 3000 LB, SW, ASME B16.11, ASTM A350 GR LF2
77	Elbow	-	6	25"	ELL 90, 3000 LB, SW, ASME B16.11, ASTM A350 GR LF2
78	Elbow	-	10	2"	ELL 90, 3000 LB, SW, ASME B16.11, ASTM A350 GR LF2
79	Elbow	-	2	¾"	ELBOW 90 LR, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
80	Elbow	-	4	1½"	ELBOW 90 LR, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
81	Elbow	-	2	4"	ELBOW 90 LR, SCH 80, BW, ASME B16.9
82	Elbow	-	2	1"	ELBOW 90 LR, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
83	Elbow	-	4	1½"	ELL 45, 3000 LB, SW, ASME B16.11, ASTM A350 GR LF2
84	Elbow	-	2	15	ELL 90, 3000 LB, SW, ASME B16.11, ASTM 350 GR. LF2 CL.1
85	Cap	-	2	6"	CAP, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
86	Reducer	-	2	6" * 5"	REDUCER (CONC), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
87	Reducer	-	6	2" * 1½"	REDUCER (CONC), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
88	Reducer	-	8	4" * 2"	REDUCER (CONC), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
89	Reducer	-	2	4" * 3"	REDUCER (CONC), BW, ASME B16.9-SCH80, ASTM A420 GR WPL6
90	Reducer	-	4	4" * 2"	REDUCER (CONC), SCH 160, BW, ASME B16.9, ASTM A420 GR WPL6
91	Reducer	-	4	3" * 2"	REDUCER (CONC), BW, ASME B16.9-SCH80, ASTM A234 GR WPB
92	Reducer	-	8	1½" * 1"	REDUCER (CONC), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
93	Reducer	-	2	2" * 1"	REDUCER (CONC), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
94	TEE	-	2	6"	TEE, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
95	TEE	-	3	4" * 2"	TEE (RED), SCH 80, BW, ASME B16.9, AST, ASTM A420 GR WPL6
96	TEE	-	3	4"	TEE, BW, ASME B16.9, ASTM A420 GR WPL6 SMLS, SCH 40
97	TEE	-	3	4" * 2"	TEE (RED), 4"X2" ND, SCH 80, BW, ASME B16.9
98	TEE	-	4	2" * 1"	TEE (RED), SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6
99	TEE	-	2	1½"	TEE, SCH 80, BW, ASME B16.9, ASTM A420 GR WPL6

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
100	TEE	-	2	1½" * 1"	TEE (RED), SCH 80, BW, ASME B16.9, AST, ASTM A420 GR WPL6
101	TEE	-	2	1½" * ¾"	TEE (RED), SCH 80, BW, ASME B16.9, AST, ASTM A420 GR WPL6
102	TEE	-	4	4" * 1½"	TEE (RED), SCH 80, BW, ASME B16.9, AST, ASTM A420 GR WPL6
103	Weldolet	-	4	150 * 15	WELDOLET, BW, 80, MSS-SP-97, ASTM A350 GR LF2
104	Weldolet	-	6	150 * 20	WELDOLET, BW, 80, MSS-SP-97, ASTM A350 GR LF2
105	Weldolet	-	4	50 * 15	WELDOLET, BW, 80, MSS-SP-97, ASTM A350 GR LF2
106	Sockolet	-	4	100 * 40	SOCKOLET, 3000 LB, BWXSW, 9/16" LG, ASME B16.11, ASTM A350 GR LF2
107	Bolt / 2 Nuts	-	40	14 * 70	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
108	Bolt / 2 Nuts	-	72	16 * 85	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
109	Bolt / 2 Nuts	-	20	16 * 80	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
110	Bolt / 2 Nuts	-	196	16 * 95	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
111	Bolt / 2 Nuts	-	56	20 * 95	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
112	Bolt / 2 Nuts	-	60	20 * 125	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
113	Bolt / 2 Nuts	-	60	20 * 130	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
114	Bolt / 2 Nuts	-	300	16 * 95	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
115	Bolt / 2 Nuts	-	48	20 * 95	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
116	Bolt / 2 Nuts	-	88	16 * 80	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
117	Bolt / 2 Nuts	-	72	16 * 85	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
118	Bolt / 2 Nuts	-	52	20 * 115	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
119	Bolt / 2 Nuts	-	52	20 * 120	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)

# ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
120	Bolt / 2 Nuts	-	20	16 * 95	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
121	Bolt / 2 Nuts	-	20	20 * 115	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS (H.D.G.)
122	Bolt / 2 Nuts	-	20	14 * 75	BOLT SET, RF, 300 LB, STUD BOLT, 2 HEX NUTS
123	Bolt / 2 Nuts	-	12	14 * 75	BOLT SET, RF, 150 LB, STUD BOLT, 2 HEX NUTS
124	U-Bolt / 4 Nuts	-	32	2"	Galvanized Steel
125	U-Bolt / 4 Nuts	-	20	1 1/2"	Galvanized Steel
126	U-Bolt / 4 Nuts	-	16	1"	Galvanized Steel
127	U-Bolt / 4 Nuts	-	4	4"	Galvanized Steel
128	U- Bolt / 4 Nuts	-	18	1/2"	Galvanised Steel
129	U- Bolt / 4 Nuts	-	10	3/8"	Galvanised Steel
130	U-Bolt / 4 Nuts	-	2	6"	Galvanized Steel
131	PIPE	-	36	1 1/2"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
132	PIPE	-	12	1"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
133	PIPE	-	6	4"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
134	PIPE	-	6	2"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
135	PIPE	-	6	1/2"	Pipe, Seamless, SCH80, PE, ASME B36.10, ASTM A333 GR 6
136	PIPE	-	6	1/2"	Pipe, Seamless, PE, ASME B36.19, ASTM A312 GR TP304, SCH 40s
137	PIPE	-	6	6"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
138	PIPE	-	66	2"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
139	PIPE	-	6	4"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6
140	PIPE	-	6	1"	PIPE, SEAMLESS, SCH80, PE, ASME B36.10, ASTM A333 GR 6

## ITEM LIST CHILLER SKID

NO.	ITEM	TAG NUMBER	QTY	SIZE	DESCRIPTION
141	Tube	-	18	1/2"	Tubing, ASTM A269, Seamless, 316SS, 0.065" WT
142	Tube	-	6	3/8"	Tubing, ASTM A269, Seamless, 316SS, 0.049" WT
143	Male Connector	-	6		Male Connector 3/8" NPT * 1/2" Tube
144	Male Connector	-	32		Male Connector 1/2" NPT * 1/2" Tube
145	Male Connector	-	8		Male Connector 3/8" NPT * 3/8" Tube
146	Male Elbow Connector	-	3		Male Elbow Connector 3/8" NPT * 1/2" Tube
147	Female Union Elbow	-	5		Female Union Elbow 1/2" Tube * 1/2" Tube
148	Female Union Elbow	-	5		Female Union Elbow 3/8" Tube * 3/8" Tube
149	Female Connector	-	4		Female Connector 1/2" NPT * 1/2" Tube
150	Female Connector	-	4		Female Connector 3/8" NPT * 3/8" Tube
151	Nipple	-	4		1/2" NPT-50mm
152	Nipple	-	4		3/8" NPT-50mm
153	Cable				TICU/XLPE/OSCR/LSHF/SWA/LSHF - 1x2x1.5 RM mm2 - BLUE
154	Cable				TICU/XLPE/LSHF/SWA/LSHF - 1x2x2.5 RM mm2 - GREY