

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below



STATUTORY DECLARATION **Registration of Fittings** David M. Rakos, Director of Quality and Engineering (Name and Position, e.g. President, Plant Manager, Chief Engineer) of Acme Cryogenics, Inc. (Name of Manufacturer) Located at 2801 Mitchell Avenue, Allentown, PA 18103 (610) 791-7909 (610) 791-2837 (Plant Address) (Telephone No.) (Fax No.) do solemnly declare that the fittings listed hereunder, which are subject to the Technical Standards and Safety Act, Boilers and Pressure Vessels Regulation, comply with all of the requirements of (Title of recognized North American Standard) which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service; or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with ASME B31.3 & CGA V-6 as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service. I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of CSA B51 which has been verified by the following authority, TUV Rheinland The items covered by this declaration, for which I seek registration, are category H type fittings. In support of this application, the following information and/or test data are attached as follows: Drawing CRN-D-08051, Rev. B, Scope of CRN Registration, Calculations (drawings, calculations, test reports, etc.) Declared before me at Commonwealth of Pennsylvania - Notary Seal EILEEN R PETRASOVITS - Notary Public Lehigh County My Commission Expires Jul 23, 2022 Commission Number 1191577 (Signature) (Signature of Declarer) FOR OFFICE USE ONLY Technical Boilers and To the best of my knowledge and belief, the application meets the requirements of the Standards Pressure Vessels and Safety Safety Program Technical Standards and Safety Act, Boilers and Pressure Vessels Regulation, and Authority CSA Standard B51 and is accepted for registration in Category REGISTERED CRN: This Document has been C.R.N.: 0H6700.5R3 digitally signed and approved. The stamp size has been Registered by: Signed: W17 optimized for 11 x 17 documents. Date: April 6, 2023. Dated: Renewal - Scope of CRN Registration Dwg. No. CRN-D-08051 Sheet 1 to 4 Rev. C If these registered fittings are connected to a hose assembly, such hose assembly must be qualified by proof testing and registered under different CRN number for NOTE: This registration expires on: Apr. 06, 2033

installation/application in Ontario

SCOPE OF CRN REGISTRATION

3.1 ASK-40-0174 Hex Brass Coupling 2 B16-C36000 H02 600 -320 150 E11040.03	No.	Part	Product Description	Size	Material (note 2)	Design P (psi)	MDMT	Design Temp (°F)	Calculation
31 ASK-40-0174 Hex Brass Coupling 2 B16-C38000 H02 600 -320 150 E11040.03	1	ASK-40-0072	Hex Brass Coupling	1	B16 C36000 H02	600	-320	150	E11040.01
3.1.1 ASK-40-0174 Hex Brass Coupling with 4 Purge Ports 1 816-G36000 H02 500 -320 150 E11040.034 3.1.1 ASK-40-0175 Hex Brass Coupling with 4 Purge Ports 2 SA-479 304/3044 650 -320 150 E11040.034 3.2.1 ASK-40-0171 Hex Brass Coupling with 4 Purge Ports 2 SA-479 304/3044 650 -320 150 E11040.034 3.2.1 ASK-40-01715 COUPUNG-HEX S2*CO2 2 SA-479 304/3044 650 -320 150 E11040.034 4 590-021-15 Fixed End Cast 11	2	ASK-40-0073	Hex Brass Coupling	1½	B16 C36000 H02	600	-320	150	E11040.02
3.11 ASK-40-0174S COUPLING-HEX S3,1"CO2 1 SA-479.304/304L 650 320 150 E11040.034 3.2 ASK-40-01715 Mex Brass Coupling with 4 Purge Ports 2 Sa16.58000 400 320 150 E11040.034 4 590-0271-5 Fixed End Cast 1½ 862.038000 600 -320 150 E11040.034 4 590-0271-5 Fixed End Cast 1½ 862.038000 600 -320 150 E11040.034 5 5 5 5 5 5 5 5 5	3	ASK-40-0074	Hex Brass Coupling	2	B16 C36000 H02	600	-320	150	E11040.03
3.2.1 ASK-40-01715 Hex Bras's Coupling with a Purge Ports 2 SA-479 304/3041 650 -320 150 E11040.034 3.2.1 ASK-40-01715 COUPUNG-HEX SS2*CO2 2 SA-479 304/3041 650 -320 150 E11040.034 4.1 590-021-150R Fixed End Cast 11 B62 C38500 600 -320 150 E11040.04 1.1 590-021-150R Fixed End Cast 11 B62 C38500 600 -320 150 E11040.04 5 590-031-15 Fixed End Cast 11 B62 C38500 600 -320 150 E11040.06 6 590-038-15 Fixed End Cast 11 B62 C38500 600 -320 150 E11040.06 7 S90-041-15 Fixed End Cast 11 B62 C38500 600 -320 150 E11040.07 7 S90-041-15 Fixed End Cast 12 B62 C38500 600 -320 150 E11040.08 9 S80-021-15 Fixed End Cast 12 B62 C38500 600 -320 150 E11040.09 9 S80-021-15 Fixed End Cast 12 B62 C38500 600 -320 150 E11040.09 9 S80-021-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.09 9 S80-021-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.09 9 S80-021-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.09 9 S80-021-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.09 10 S80-034-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.10 11 S80-035-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 11 S80-035-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 11 S80-035-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 13 S80-022-25 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 13 S80-022-25 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 14 S40-020-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 14 S40-020-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.11 15 S40-021-15 Fixed End Cast 13 B62 C38500 600 -320 150 E11040.12 15 S40-021-15 Fixed End Cast 13 B62 C38500 600 -320 1	3.1	ASK-40-0174	Hex Brass Coupling with 4 Purge Ports	1	B16 C36000 H02	600	-320	150	E11040.03A
3.21 ASK-40-041715 COUPUNG-HEX S2"CO2 2 SA-479 304/2041 650 -320 150 E11040,034 4 590-021-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,04 50 590-021-150RF Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,04 5 590-031-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,05 6 590-038-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,07 7 590-041-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,07 8 590-022-25 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,07 8 590-022-25 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,09 9.1 580-021-150RF Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,09 9.1 580-021-150RF Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,09 9.2 580-021-150RF Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,09 10 580-034-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,09 10 580-035-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,10 11 580-035-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 11 580-035-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 12 580-076-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 12 580-076-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 13 580-022-25 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 13 580-022-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 14 540-020-150RF Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,11 15 540-038-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,12 15 540-038-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,12 15 540-038-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,12 15 540-038-15 Fixed End Cast 1½ B62 C83500 600 -320 150 E11040,12 15	3.1.1	ASK-40-0174S	COUPLING-HEX SS,1"CO2	1	SA-479 304/304L	650	-320	150	E11040.03A
4.1 590-021-15	3.2	ASK-40-0171	Hex Brass Coupling with 4 Purge Ports	2	B16 C36000 H02	600	-320	150	E11040.03B
Section	3.2.1	ASK-40-0171S	COUPLING-HEX SS 2"CO2	2	SA-479 304/304L	650	-320	150	E11040.03B
5 590.037-15 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.05 6 590.038-15 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.05 8 590.022-25 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.05 9 580.021-15 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.09 9.1 580.021-15 SPTB Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.09 9.2 580.021-15 SPUB Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.09 9.1 580.031-15 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.01 11 580.035-15 Fixed End Cast 1½ 862 (283600) 600 .320 150 E11040.11 11.1 580.035-15 Fixed End Cast 1½	4	590-021-15	Fixed End Cast	1½	B62 C83600	600	-320	150	E11040.04
6 590-038-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.06 7 590-041-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.08 9 580-021-15 Fixed End Cast 2½ B62 C83600 600 -320 150 E11040.08 9 580-021-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 9.1 580-021-15 Fix Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 9.2 580-021-15 STUB F.E.ARGON.W/COPPER STUBS 1½ B62 C83600 600 -320 150 E11040.09 10 580-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 11 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.10 11 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.12 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 15 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 16 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 17 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 18 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.25 15.1 540-036-15 Fixed End Machined 1½ B62 C83600 600 -320 150 E11040.25 15.1 540-036-15 Fixed End Machined 1½ B62 C83600 600 -320 150 E11040.25 22.2 600-001-15 Fixed	4.1	590-021-15ORF	Fixed End Cast	1½	B62 C83600	600	-320	150	E11040.04
Fixed End Cast	5	590-037-15	Fixed End Cast	1½		600	-320	150	E11040.05
8 590-022-25 Fixed End Cast 2½ B62 C83600 600 -320 150 E11040.08 9 580-021-150RF Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 9.1 580-021-150RF Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 10 580-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.10 11 580-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 11 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 11.1 580-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 14.1 540-020-15 Fixed End Cast 1½ B62 C83600	6	590-038-15	Fixed End Cast	1½	B62 C83600	600	-320	150	E11040.06
9	7	590-041-15	Fixed End Cast		B62 C83600	600	-320	150	E11040.07
9.1 580-021-15-STUB Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.09 9.2 580-021-15-STUB F.E.ARGON W/COPPER STUBS 1½ B62 C83600 600 -320 150 E11040.09 10 580-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.10 11 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 11.1 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 11.2 580-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 580-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 13 580-022-25 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 15 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 15 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.13 15 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 16 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 17 540-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 18 540-031-20 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 18 540-021-20 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 19 540-076-15 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.15 19 540-078-15 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.15 20 590-014-15 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.12 21 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 21 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 23 590-058-15 Fixed End Machined 1½ SA479 316/3161 650 -320 150 E11040.22 24 590-069-15 Fixed End Machined 1½ SA479 316/3161 650 -320 150 E11040.22 25 590-061-15 Fixed End Machined 1½ SA479 316/3161 650 -320 150 E11040.23 26 590-061-15 Fixed End Machined 1½ SA479 316/3161 650 -320 150 E11040.23 27 590-061-15 Fixed End Machined 1½ SA479 316/3161	8	590-022-25	Fixed End Cast		B62 C83600	600	-320	150	E11040.08
9.2 \$80-021-15-STUB F.E.ARGON W/COPPER STUBS 1½ B62 C83600 600 -320 150 E11040.09 10 \$80-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 11 \$80-035-15 OFF F.E.ARG 1.5CAST_1.5 FNPT ORIF 1½ B62 C83600 600 -320 150 E11040.11 12 \$80-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 12 \$80-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 13 \$80-022-25 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11 14 \$40-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.12 14 \$40-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 \$40-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 16 \$40-038-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 17 \$40-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.16 17 \$40-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.16 18 \$40-021-20 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.16 19 \$40-028-20 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.19 20 \$590-014-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.20 21 \$590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.20 22 \$590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 22 \$590-039-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 22 \$590-039-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 22 \$590-039-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 23 \$590-061-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 24 \$590-061-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 25 \$590-061-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 26 \$590-061-15 Fixed End Machined 1½ S24 C46400 H02 600 -320 150 E11040.22 27	9	580-021-15	Fixed End Cast			600	-320		E11040.09
10 580-034-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.10		580-021-15ORF	Fixed End Cast			l			E11040.09
11 580-035-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.11			·						E11040.09
11.1 580-035-15ORF F.EARG 1.5CAST,1.5 FNPT ORIF 1½ B62 C83600 600 -320 150 E11040.11 12 580-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.12 13 580-022-25 Fixed End Cast 2½ B62 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 14.1 540-020-15ORF Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 540-036-15ORF Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 540-036-15ORF F.EOXY.1.5 CAST,1.5FNPT ORIF 1½ B62 C83600 600 -320 150 E11040.15 15 540-036-15ORF F.EOXY.1.5 CAST,1.5FNPT ORIF 1½ B62 C83600 600 -320 150 E11040.15 16 540-038-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.16 17 540-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.16 17 540-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.17 18 540-021-20 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.17 18 540-021-20 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.19 20 590-014-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.20 20 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.20 21 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.20 22 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ SA-479 316/316L 650 -320 150 E11040.22 23 590-058-15 Fixed End Machined 1½ SA-479 316/316L 650 -320 150 E11040.22 25 590-061-15 Fixed End Machined 1½ SA-479 316/316L 650 -320 150 E11040.23 26 590-062-15 Fixed End Machined 1½ SA-479 316/3									E11040.10
12 580-076-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.12 13 580-022-25 Fixed End Cast 2½ 862 C83600 600 -320 150 E11040.13 14 540-020-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.13 14 540-020-150RF Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.14 15 540-036-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 15 540-036-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 16 540-036-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 16 540-038-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 16 540-038-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 17 540-076-15 Fixed End Cast 1½ 862 C83600 600 -320 150 E11040.15 18 540-021-20 Fixed End Cast 2 862 C83600 600 -320 150 E11040.18 19 540-028-20 Fixed End Cast 2 862 C83600 600 -320 150 E11040.19 20 590-014-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.20 20 590-014-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.20 21 590-023-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.20 22 590-039-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.22 22 590-039-15 Fixed End Machined 1½ 821 C46400 HD2 600 -320 150 E11040.22 23 590-038-15 Fixed End Machined 1½ SA-479 316/3161 650 -320 150 E11040.22 24 590-060-15 Fixed End Machined 1½ SA-479 316/3161 650 -320 150 E11040.22 25 590-061-15 Fixed End Machined 1½ SA-479 316/3161 650 -320 150 E11040.22 25 590-061-15 Fixed End Machined 1½ SA-479 316/3161 650 -320 150 E11040.23 29 590-065-15 Fixed End Machined 1½ SA-479 316/3161 650						t			
13 580-022-25			'						
14 540-020-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 14.1 540-020-150RF Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.14 15 540-036-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.15 15.1 540-036-150RF F.E.OXY1.5 CAST,1.5FNPT ORIF 1½ B62 C83600 600 -320 150 E11040.15 16 540-038-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.16 17 540-076-15 Fixed End Cast 1½ B62 C83600 600 -320 150 E11040.17 18 540-021-20 Fixed End Cast 2 B62 C83600 600 -320 150 E11040.19 19 540-028-20 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.29 20.1 590-014-150RF Fixed End Machined <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
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31 590-068-15 Fixed End Machined 1½ B21 C46400 H02 600 -320 150 E11040.31 32 590-069-15 Fixed End Machined 1½ SA-479 304/304L 650 -320 150 E11040.32									E11040.30
									E11040.31
	32	590-069-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.32
55 555 575 150 150 150 150 150 150 150 150 150 15	33	590-070-15	Fixed End Machi <u>ned</u>	1½	SA-479 304/304L	650	-320	150	E11040.33

No.	Part	Product Description	Size	Material (note 2)	Design P (psi)	MDMT	Design Temp (°F)	Calculation
34	590-071-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.34
34.1	590-054-15	TAILPIECE-NIT 1.5" 304 SST	1½	SA-479 304/304L	650	-320	150	E11040.34
35	590-072-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.35
36	590-073-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.36
37	590-074-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.37
38	590-079-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.38
38.1	590-090-15	F.ENIT 1.5,2 ODT BWE,316L	1½	SA-479 316/316L	650	-320	150	E11040.38
39	590-090-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.39
40	590-094-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.40
41	ASK-40-0014	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.41
42	590-024-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.42
43	590-029-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.43
44	590-043-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.44
45	590-044-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.45
46	590-051-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.46
47	590-053-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.47
48	590-057-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.48
48.1	590-111-25	F.ENIT 2.5 "TUB,BR GL 314134B	2½	SB-505 C85700	600	-320	150	E11040.48
48.2	590-112-25	F.ENIT 2.5,GSKTLS,PIPESKT BR	2½	SB-505 C85700	600	-320	150	E11040.48
49	590-075-25	Fixed End Machined	2½	SA-479 316/316L	650	-320	150	E11040.49
50	590-076-25	Fixed End Machined	2½	B21 C46400 H02	600	-320	150	E11040.50
51	590-077-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.51
52	590-078-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.52
52.1	590-099-25	F.ENIT 2.5,3"X2.5PIPESS	2½	SA-479 304/304L	650	-320	150	E11040.52
53	590-083-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.53
54	590-084-25	Fixed End Machined	2½	SA-479 316/316L	650	-320	150	E11040.54
55	590-085-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.55
56	590-086-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.56
57	580-014-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.57
58	580-015-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.58
59	580-016-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.59
59.1	580-016-15ORF	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.59
60	580-017-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.60
61	580-023-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.61
62	580-033-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.62
63	580-060-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.63
64	580-061-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.64
65	580-062-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.65
66	580-063-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.66
67	580-064-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.67
68	580-065-15	Fixed End Machined	1½	SA-479 304/304L		-320	150	E11040.68
69	580-067-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.69
70	580-068-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.70
71	580-070-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.71
72	580-071-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.72
72.1	580-054-15	TAILPIECE-ARG 1.5"	1½	SA-479 304/304L	650	-320	150	E11040.72
73	580-072-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.73
74	580-073-15	Fixed End Machined	1½	SA-479 304/304L		-320	150	E11040.74
75	580-074-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.75

THIS IS PART OF CRN 0H6700.5R3

NOTES:

DESIGN CODE: ASME B31.3-2020

REFERENCE MATERIAL SPECIFICATIONS, PAGE IX OF CALCULATION E11040 REV 1

В	REDRAWN IN SOLIDWORKS	3/17/2022	AJH	JDE	10369
С	RMV ASSY TABLES ON SHTS 5-7	4/4/2023	AJH	JDE	10480
REV	DESCRIPTION	DATE	REV BY	APPD BY	ECN NO.

Technical Standards and Safety Authority ORIGINAL UNLESS OTHERWISE SPECIFIED INTERPRET PER ASME Y14.5-2009

. THE FOLLOWING TOLERANCES APPLY: .XX: ±.01" .XXX: ±.005" FRACTIONS: ± 1/32" ANGLES" ±0.5*

2. ALL DIMENSIONS ARE INCHES. 3. REMOVE ALL BURRS AND SHARP EDGES .015 MAX 4. MACHINED SURFACE TO BE 125 MICR-INCHES OR BETTER.

5. DO NOT SCALE DRAWING.

	WJR		12/21/2011
DRAWN BY	PGZ	DATE	04/05/2012
CHECKED BY	BL	DATE	3/4/2022
APPROVED BY	JDE	DATE	03/17/2022

THIS DRAWING AND THE INFORMATION OR DATA CONTAINED HEREIN ARE CONSIDERED PROPRIETARY TO ACME
CRYCOGNICS, INC. AND IS NOT TO BE COPIED, REPRODUCED, DUPLICATED OR DISCLOSED TO OTHER IN WHITCH OR INTERNET WHITCH TO CHECK IN THE OFFICE AND IN THE OTHER OR WHITTEN CONSIST OF A CHIEF CONTINUES, INC. THE PROPRIET HERE OR WHITEN CONSIST OF A CHIEF CONTINUES, INC. THE PROPRIET HERE OR WHITEN CONSIST OF A CHIEF CONTINUES CONTROLLED IN THE RECIPIENT OF A CHIEF CONTINUES CONTROLLED IN TOWN OF A CHIEF CONTINUES CONTROLLED IT FOR WORK OR A JOB, THIS RESTRICTION SHALL NOT APPLY TO INFORMATION OR DATA CONTAINED HEREIN WHICH IS AVAILABLE TO THE PROPRIET OF A CHIEF CONTROLLED CONT

SCOPE OF REGISTRATION - CGA STANDARD CRYOGENIC LIQUID TRANSFER CONNECTIONS

CRYOGENICS Quint OCYI

DWG NO. CRN-D-08051

B SHEET: SHEET 1 OF 4

Α

В

REV. C

SCOPE OF CRN REGISTRATION

No.	Part	Product Description	Size	Material (note 2)	Design P (psi)	MDMT	Design Temp (°F)	Calculation
76	580-078-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.76
77	580-079-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.77
78	580-090-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.78
79	ASK-40-0015	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.79
80	580-024-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.80
81	580-036-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.81
82	580-052-25	Fixed End Machined	2½	B21 C46400 H02	600	-320	150	E11040.82
83	580-057-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.83
84	580-069-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.84
85	580-075-25	Fixed End Machined	2½	SB-505 C85700	600	-320	150	E11040.85
85.1	580-111-25	F.EARG 2.5 TUB BR GL 314133B	2½	SB-505 C85700	600	-320	150	E11040.85
85.2	580-112-25	F.EARG 2.5 GSKTLS PIPESKT BR	2½	SB-505 C85700	600	-320	150	E11040.85
86	580-080-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.86
87	580-081-25	Fixed End Machined	2½	SA-479 316/316L	650	-320	150	E11040.87
88	580-082-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.88
89	580-085-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.89
89.1	580-099-25	Fixed End Machined	2½	SA-479 304/304L	650	-320	150	E11040.89A
90	540-023-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.90
90.1	540-023-15ORF	F.EOXY 1.5MACH W/ORF PLT THD	1½	B21 C46400 H02	600	-320	150	E11040.90
91	540-037-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.91
91.1	540-037-15ORF	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.91
92	540-041-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.92
92.1	540-041-15ORF	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.92
92.2	540-053-15	ADAPTOR MALE/MALE,OXY,1.5	1½	B21 C46400 H02	600	-320	150	E11040.92
93	540-060-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.93
94	540-061-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.94
95	540-062-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.95
96	540-063-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.96
97	540-064-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.97
98	540-065-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.98
99	540-067-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.99
100	540-068-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.100
101	540-070-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.101
102	540-071-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.102
103	540-072-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.103
104	540-073-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.104
105	540-074-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.105
106	540-078-15	Fixed End Machined	1½	SA-479 304/304L	650	-320	150	E11040.106
107	540-079-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.107
108	540-090-15	Fixed End Machined	1½	SA-479 316/316L	650	-320	150	E11040.108
108.1	540-054-15	TAILPIECE-OXY 1.5" 304 SST	1½	SA-479 304/304L	650	-320	150	E11040.108
109	540-094-15	Fixed End Machined	1½	B21 C46400 H02	600	-320	150	E11040.109
110	540-022-20	Fixed End Machined	2	SB-505 C85700	600	-320	150	E11040.110
111	540-039-20	Fixed End Machined	2	SB-505 C85700	600	-320	150	E11040.111
111.1	540-040-20	F.EOXY 2,MACH,2 MNPT	2	SB-505 C85700	600	-320	150	E11040.111
112	540-075-20	Fixed End Machined	2	SA-479 304/304L	650	-320	150	E11040.112
113	540-024-30	Fixed End Machined	3	SB-505 C85700	600	-320	150	E11040.113
114	540-040-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.114
115	540-058-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.115
116	540-069-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.116
117	540-080-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.117

No.	Part	Product Description	Size	Material (note 2)	Design P (psi)	MDMT	Design Temp (°F)	Calculation
118	540-082-30	Fixed End Machined	3	SA-479 304/304L	650	-320	150	E11040.118
118.1	540-099-30	Fixed End Machined	3	SA-479 304/304L	650	-320	150	E11040.118A
119	540-089-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.119
120	540-091-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.120
120.1	540-111-30	F.EOXY 3,TUB,BR GL 314135B	3	B21 C46400 H02	600	-320	150	E11040.120
120.2	540-112-30	F.EOXY 3,GSKLS PIPESKT BRS	3	B21 C46400 H02	600	-320	150	E11040.120
120.3	540-128-30	F.EOXY 3GASKETLESS SHORT	3	B21 C46400 H02	600	-320	150	E11040.120
120.4	540-128-30SP	F.EOXY 3GSKLS SHORT NO FLATS	3	B21 C46400 H02	600	-320	150	E11040.120
121	540-092-30	Fixed End Machined	3	B21 C46400 H02	600	-320	150	E11040.121
122	ASK-40-0434	Fixed End Brazed Block	1½	B21 C46400 H02	600	-320	150	E11040.122
123	ASK-40-0454	Fixed End Brazed Block	1½	B21 C46400 H02	600	-320	150	E11040.123
124	ASK-40-0416	Fixed End Brazed Block	1½	B21 C46400 H02	600	-320	150	E11040.124
129	ASK-40-0443	Fixed End Rail Car	2½	SA-479 304/304L	275/600	-320	150	E11040.129
130	ASK-40-0444	Fixed End Rail Car	2½	SA-479 304/304L	275/600	-320	150	E11040.130
131	ASK-40-0456	Fixed End Rail Car	2	SA-479 304/304L	275/600	-320	150	E11040.131
132	ASK-40-0445	Fixed End Rail Car	3	SA-479 304/304L	275/600	-320	150	E11040.132
133	ASK-40-0086	Head Plug	1½	B21 C46400 H02	600	-320	150	E11040.133
134	ASK-40-0089	Head Plug	2	B21 C46400 H02	600	-320	150	E11040.134
135	ASK-40-0087	Head Plug	21/2	B21 C46400 H02	600	-320	150	E11040.135
135.1	ASK-40-0199	HEADPLUG-2.5 GASKETLESS BRS	2½	B21 C46400 H02	600	-320	150	E11040.135
136	ASK-40-0088	Head Plug	3	B21 C46400 H02	600	-320	150	E11040.136
137	ASK-40-0086S	Head Plug	1½	SA-479 316/316L	650	-320	150	E11040.137
138	ASK-40-0003	Head Piece Threaded	1½ MNPT	B21 C46400 H02	600	-320	150	E11040.138
138.1	ASK-40-0003-6"L	Head Piece Threaded	1½ MNPT	B21 C46400 H02	600	-320	150	E11040.138
139	ASK-40-0130	Head Piece Threaded	1½ MNPT	B21 C46400 H02	600	-320	150	E11040.139
140	ASK-40-0082	Head Piece Threaded	1½ MNPT	B21 C46400 H02	600	-320	150	E11040.140
141	ASK-40-0080	Head Piece Threaded	1½ MNPT	B21 C46400 H02	600	-320	150	E11040.141
142	ASK-40-0084	Head Piece Threaded	1½ MNPT	SA-479 316/316L	650	-320	150	E11040.142
143	ASK-40-0118	Head Piece Threaded	1½ MNPT	SA-479 304/304L	650	-320	150	E11040.143
144	ASK-40-0020	Head Piece Threaded	2 MNPT	B21 C46400 H02	600	-320	150	E11040.144
144.1	ASK-40-0020BWE	HEADPC-2"W/SCH10 BWE 304 S/S	2"	B21 C46400 H02	600	-320	150	E11040.144
145	ASK-40-0050	Head Piece Threaded	2 MNPT	SB-505 C857	600	-320	150	E11040.145
146	ASK-40-0051	Head Piece Threaded	2 MNPT	B21 C46400 H02	600	-320	150	E11040.146
147	ASK-40-0127	Head Piece Threaded	2 MNPT	SA-479 304/304L	650	-320	150	E11040.147
148	ASK-40-0125	Head Piece Threaded	2 MNPT	SA-479 304/304L	650	-320	150	E11040.148
149	ASK-40-0126	Head Piece Threaded	2 MNPT	SA-479 304/304L	650	-320	150	E11040.149
150	ASK-40-0004	Head Piece Threaded	2½ MNPT	B21 C46400 H02	600	-320	150	E11040.150
151	ASK-40-0097	Head Piece Threaded	2½ MNPT	B21 C46400 H02	600	-320	150	E11040.151
151.1	ASK-40-0097EX	Head Piece Threaded	2½ MNPT	B21 C46400 H02	600	-320	150	E11040.151
152	ASK-40-0129	Head Piece Threaded	2½ MNPT	SA-479 304/304L	650	-320	150	E11040.151
152.1	ASK-40-0129-316	HEADPC-2.5 X 2.5 MNPT 316	2½ MNPT	SA-479 304/304L	650	-320	150	E11040.152
152.2	ASK-40-0129-510 ASK-40-0129-EXT	HEADPC-2.5X2.5MNPT 304 SS 7"LG	2½ MNPT	SA-479 304/304L	650	-320	150	E11040.152
152.2	ASK-40-0129-EXT	HEADPC-2.5 AR/NI SS GSKL314124	2½ MNPT	SA-479 304/304L	650	-320	150	E11040.152
153	ASK-40-0178 ASK-40-0131	Head Piece Threaded	2½ MNPT	SA-479 304/304L	650	-320	150	E11040.152
153.1	ASK-40-0131 ASK-40-0131BWE	HEADPC-3 X 2.5 SCH 10 BWE	3	SA-479 304/304L	650	-320	150	E11040.153
154	ASK-40-01316WE	Head Piece Threaded	3 MNPT	SB-505 C857	600	-320	150	E11040.153
155	ASK-40-0008 ASK-40-0128	Head Piece Threaded Head Piece Threaded	3 MNPT	SA-479 304/304L	650	-320	150	E11040.154
155.1	ASK-40-0128-316	HEADPC-3 X 3 MNPT 316	3 MNPT	SA-479 316/316L		-320	150	E11040.155
155.1	ASK-40-0128-316 ASK-40-0179	HEADPC-3 X 3 MINPT 316 HEADPC-3 OXY SS GSKTLS 314123			650 650	-320		
	A3N-4U-U1/3	11FWDLC-2 OV 1 22 G2V1F2 214152	3 MNPT	SA-479 304/304L	650	-320	150	E11040.155

THIS IS PART OF CRN 0H6700.5R3

Technical Standards and Safety Authority Boilers and Pressure Vessels Safety Program

ORIGINAL

UNLESS OTHERWISE SPECIFIED	DESIGN BY		DATE
INTERPRET PER ASME Y14.5-2009		WJR	12/21/2011
 THE FOLLOWING TOLERANCES APPLY: .XX: ±.01" .XXX: ±.005" FRACTIONS: ± 1/32" ANGLES" ±0.5* 	DRAWN BY	PGZ	DATE 04/05/2012
2. ALL DIMENSIONS ARE INCHES.	CLIECKED BY		DATE
3. REMOVE ALL BURRS AND SHARP EDGES .015 MAX	CHECKED BY	BL	^{DATE} 3/4/2022
 MACHINED SURFACE TO BE 125 MICR-INCHES OR BETTER. 	APPROVED BY	IDF	DATE 03/17/2022
5. DO NOT SCALE DRAWING.			00,17,2022

SCOPE OF REGISTRATION - CGA STANDARD CRYOGENIC LIQUID TRANSFER CONNECTIONS THIS DRAWING AND THE INFORATION OR DATA CONTAINED FREEN ARE CONSIDERED PROPRIETIANY TO ACME
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P/N:

PART WITHOUT THE REPORT WRITTEN CONCERN FOR ADDRESS CONTROLLS, INC. THE PROSESSION OF THE RECIPIENT
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CRYOGENICS

CRN-D-08051 DWG NO. B SHEET: SHEET 2 OF 4 REV. C

THIRD ANGLE PROJECTION

Α

В

D
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No.

Part

Product Description

1571 ASK-40-0052P Head Piece BE 13/15 B31 (ASK-00-002 600 320 150 11040157 158 ASK-40-0116 Head Piece BE 13/15 B31 (ASK-00-016 600 320 150 11040158 1581 ASK-40-0166 Head Piece BWE 13/15W SA-479 316/3161 650 320 150 11040158 1591 ASK-40-0169 Head Piece BWE 13/15W SA-479 316/3161 650 320 150 11040158 1592 ASK-40-0117 Head Piece BE 13/15W SA-479 316/3161 650 320 150 11040158 1503 ASK-40-0119 Head Piece BWE 13/15W SA-479 304/3041 650 320 150 11040158 1511 ASK-40-018 HEADPC-1.5 RAZED BLOCK 13/15W SA-479 304/3041 650 320 150 11040161 1512 ASK-40-018 HEADPC-1.5 RAZED BLOCK 13/15W SA-479 304/3041 650 320 150 11040161 1513 ASK-40-018 HEADPC-1.5 RAZED BLOCK 13/15W SA-479 304/3041 650 320 150 11040161 1514 ASK-40-018 Head Piece BE 2.15 SS-505 (357.00 600 320 150 11040161 1515 ASK-40-018 Head Piece BE 2.15 SS-505 (357.00 600 320 150 11040161 1516 ASK-40-0032 Head Piece BE 2.15 93 (146400 Hu2) 600 320 150 11040161 1516 ASK-40-0032 Head Piece BE 2.15 93 (146400 Hu2) 600 320 150 11040161 1516 ASK-40-0032 Head Piece BE 2.75 93 (146400 Hu2) 600 320 150 11040161 1517 ASK-40-0032 Head Piece BE 3.75 37 (146400 Hu2) 600 320 150 11040161 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 11040161 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 11040161 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 11040161 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 1104017 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 1104017 1518 ASK-40-0121 Head Piece BWE 3.75 37 (146400 Hu2) 600 320 150 1104017 1519 ASK-40-0125 Head Piece BWE 3.75 37 (0 11 /			
1586	157	ASK-40-0052	Head Piece BE	1½ TS	B21 C46400 H02	600	-320	150	E11040.157
1581 ASK-40-0156	157.1	ASK-40-0052DP	Head Piece BE	1½ TS	B21 C46400 H02	600	-320	150	E11040.157
159	158	ASK-40-0116	Head Piece BWE	1½ PBW	SA-479 316/316L	650	-320	150	E11040.158
1610 ASK-40-0117 Head Piece BW 11/4 PS SA-473 03/43041 650 -320 150 E11040.161 1611 ASK-40-0418 Head Piece BW 11/4 PBW SA-473 03/43041 650 -320 150 E11040.161 1612 ASK-40-0418 HEADPC-1.5 BRAZED BLOCK 11/4 PBW SA-473 03/43041 650 -320 150 E11040.161 1613 ASK-40-0533 Head Piece BE 2 TS SS-505 GS5700 600 -320 150 E11040.162 1614 ASK-40-0033 Head Piece BE 2 TS B21.2 G6400.0 H02 600 -320 150 E11040.163 1614 ASK-40-0033 Head Piece BE 2 TS B21.2 G6400.0 H02 600 -320 150 E11040.163 1615 ASK-40-0034 Head Piece BE 2 TS B21.2 G6400.0 H02 600 -320 150 E11040.164 1616 ASK-40-0034 Head Piece BW 2½ PBW SA-473 03/43041 650 -320 150 E11040.165 1616 ASK-40-0012 Head Piece BW 2½ PBW SA-473 03/43041 650 -320 150 E11040.165 1617 ASK-40-0012 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.165 1618 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.165 162 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.165 163 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.166 164 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.168 165 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.168 166 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.168 167 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.168 168 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 600 -320 150 E11040.178 170 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 -320 150 E11040.178 171 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 -320 150 E11040.178 172 ASK-40-0121 Head Piece BW 3 TS SS-505 GS5700 -320 100 E11040.178 171 ASK-40-0125 Flang SST W/Forove 1 SS-283 G	158.1	ASK-40-0166	HEADPC-1.5" X 1" FNPT BRS	1½ PBW	B21 C46400 H02	600	-320	150	E11040.158
1611 ASK-40-0418 HEADPC-1.5 BRAZED BLOCK 11/4 PBW SA-479 304/304 650 -320 150 E11040.161	159	ASK-40-0135	Head Piece BWE	1½ TBW	SA-479 316/316L	650	-320	150	E11040.159
1611 ASK-40-0053	160	ASK-40-0117	Head Piece BE	1¼ PS	SA-479 304/304L	650	-320	150	E11040.160
162	161	ASK-40-0119	Head Piece BWE	1½ PBW	SA-479 304/304L	650	-320	150	E11040.161
164	161.1	ASK-40-0418	HEADPC-1.5 BRAZED BLOCK	1½ PBW	SA-479 304/304L	650	-320	150	E11040.161
164	162	ASK-40-0053	Head Piece BE		SB-505 C85700	600	-320	150	E11040.162
155		ASK-40-0054	Head Piece BE	2 TS	B21 C46400 H02	600	 		E11040.163
166	164	ASK-40-0033	Head Piece BE	2 TS	B21 C46400 H02	600	-320	150	E11040.164
167	165	ASK-40-0034	Head Piece BE	2½ TS	B21 C46400 H02	600	-320	150	E11040.165
168.1 ASK-40-0121	166	ASK-40-0120	Head Piece BWE	2½ PBW	SA-479 304/304L	650	-320	150	E11040.166
168.1 ASK-40-0121-316 HEADPC-3 X 3 SCH10BWE 316 SS 3 TBW SA-479 304/304L 650 -320 150 E11040.168 169 ASK-40-0148 Flange SBT w/Tongue 1 SB-283 G37700 300 -320 100 E11040.170 171 1 (deleted) -	167	ASK-40-0032	Head Piece BE		SB-505 C85700				E11040.167
169	168	ASK-40-0121	Head Piece BWE	3 TBW	SA-479 304/304L	650			E11040.168
170	168.1	ASK-40-0121-316	HEADPC-3 X 3 SCH10BWE 316 SS	3 TBW	SA-479 304/304L	650	-320	150	
171	169	ASK-40-0148	Flange SBT w/Tongue		SB-283 C37700		-320	100	E11040.169
172		ASK-40-0152		1½	SB-283 C37700	300	-320	100	
173			(del eted)		-				
174		ASK-40-0150	Blind Flange TS w/Tongue	1	SB-283 C37700	350	-320	100	E11040.172
175		ASK-40-0149	Flange SBT w/Groove	1			-320		
176		ASK-40-0153	Flange SBT w/Groove	1½	SB-283 C37700	300	-320	100	E11040.174
177 320-019-10		-			-	-	-		
177.1 320-019-10HVY		ASK-40-0151	Blind Flange SBT w/Groove		SB-283 C37700		-320		E11040.176
177.2 320-019-10S F.ECO2 1,THRD,SS 1 SA-479 304/304L 650 -320 150 E11040.177 177.3 320-019-10S-PUR F.ECO2 1" S/S W/1/4"PURGE 1 SA-479 304/304L 650 -320 150 E11040.177 177.4 326-003-10 F.EN2O 1" 1 SB-283 C37700, 600 -320 150 E11040.177 177.5 326-003-10-PUR F.EN2O 1" W/ 1/2" PURGE 1 SB-283 C37700, 600 -320 150 E11040.177 177.6 326-003-10S F.E. N2O 1" 304 S/S 1 SA-479 304/304L 650 -320 150 E11040.177 178 320-000-15 Fixed End 1½ SB-283 C37700, 600 -320 150 E11040.178 178.1 320-000-15S F.ECO2 1.5,THRD,SS 1½ SA-479 304/304L 650 -320 150 E11040.178 178.2 320-000-15S-PUR F.ECO2 1.5,THRD,SS 1½ SA-479 304/304L 650 -320 150 E11040.178 178.3 320-000-15S-PUR F.ECO2 1.5,SW 1/4"PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 178.3 326-008-15 F.ECO2 1.5," 1½ SA-479 304/304L 650 -320 150 E11040.178 178.4 326-008-15 PUR F.EN2O 1.5" 1½ SA-479 304/304L 650 -320 150 E11040.178 178.5 326-008-15 PUR F.EN2O 1.5" 304 S/S 1½ SA-479 304/304L 650 -320 150 E11040.178 178.5 326-008-15S F.E.N2O 1.5" 304 S/S 1½ SA-479 304/304L 650 -320 150 E11040.178 179.1 320-031-20 Fixed End 2 B16 C36000 H02 600 -320 150 E11040.179 180 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.179 180 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.179 180 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.179 180 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.180 181 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.181 181 320-038-30 F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.181 181 320-038-30 F.ECO2 2,THRD,SS 3 SA-479 304/304L 650 -320 150 E11040.181 181 320-038-	177	320-019-10			SB-283 C37700,				E11040.177
177.3 320-019-10S-PUR F.ECO2 1" S/S W/1/4" PURGE 1 SA-479 304/304L 650 -320 150 E11040.177 177.4 326-003-10 F.EN20 1" W/ 1/2" PURGE 1 SB-283 C37700, 600 -320 150 E11040.177 177.6 326-003-10S F.E.N20 1" 304 S/S 1 SB-283 C37700, 600 -320 150 E11040.177 178.1 320-000-15 F.E. N20 1" 304 S/S 1 SB-283 C37700, 600 -320 150 E11040.178 178.1 320-000-15S F.ECO2 1.5, THRD,SS 1½ SA-479 304/304L 650 -320 150 E11040.178 178.2 320-000-15S PUR F.ECO2 1.5, S/S W/1/4" PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 178.3 326-008-15 F.EN20 1.5" 1½ SA-479 304/304L 650 -320 150 E11040.178 178.4 326-008-15-PUR F.EN20 1.5" 904 S/S 1½ SA-479 304/304L 650 -320 150 E11040.178 178.5 326		320-019-10HVY			SB-283 C37700,				
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177.6 326-003-10S F.E. N2O 1" 304 S/S 1 SA-479 304/304L 650 -320 150 E11040.177 178 320-000-15 Fixed End 1½ SB-283 C37700, 600 -320 150 E11040.178 178.1 320-000-15S F.ECO2 1.5,THRD,SS 1½ SA-479 304/304L 650 -320 150 E11040.178 178.2 320-000-15S-PUR F.ECO2 1.5,S/S W/1/4"PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 178.3 326-008-15 F.ENZO 1.5" 1½ SA-479 304/304L 650 -320 150 E11040.178 178.4 326-008-15 F.ENZO 1.5" W/ 1/2" PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 178.5 326-008-155 F.ENZO 1.5" W/ 1/2" PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 179.1 320-031-20 Fixed End 2 B16 C36000 H02 600 -320 150 E11040.179 180 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
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178.4 326-008-15-PUR F.E-N2O 1.5" W/ 1/2" PURGE 1½ SA-479 304/304L 650 -320 150 E11040.178 178.5 326-008-15S F.E.N2O 1.5" 304 S/S 1½ SA-479 304/304L 650 -320 150 E11040.178 179 320-031-20 Fixed End 2 B16 C36000 H02 600 -320 150 E11040.179 179.1 320-031-20S F.ECO2 2,THRD,SS 2 SA-479 304/304L 650 -320 150 E11040.179 180 320-038-30 Fixed End 3 B21 C46400 H02 600 -320 150 E11040.180 180.1 320-038-30S F.E. CO2 3" THRD 304 S/S 3 SA-479 304/304L 650 -320 150 E11040.180 181 320-086-10 Fixed End with Purge Port 1 B16 C36000 H02 600 -320 150 E11040.181 181.2 320-129-10 Fixed End with Purge Port 1 B16 C36000 H02 600 -320 150 E11040.181 181.3					1				
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182.2 320-120-20 Fixed End with 2 Purge Ports 2 B16 C36000 H02 600 -320 150 E11040.182B									
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182.5 320-087-155 F.ECO2 1.5" W/PURGE PURI SS 1½ SA-4/9 304/304L 650 -320 150 E11040.182					+				
	182.3	320-08/-155	F.ECOZ 1.5 W/PURGE PORT SS	1 1/2	JSA-4/9 304/304L	050	-320	120	£11040.182

No.	Part	Product Description	Size	Material (note 2)	Design P (psi)	MDMT	Design Temp (°F)	Calculation
182.4	320-130-15	F.ECO2 1.5" W/1/2"&1/4"PORTS	1½	SA-479 304/304L	650	-320	150	E11040.182
182.5	326-019-15	F.EN2O 1.5 FNPT W/PURGE	1½	B16 C36000 H02	600	-320	150	E11040.182
183	320-016-10	Head Piece	1	SB-283 C37700	600	-320	150	E11040.183
183.1	320-016-10S	HEADPC-1 CO2 THRD SS	1	SA-479 304/304L	650	-320	150	E11040.183
184	320-014-15	Head Piece	1½	SB-283 C37700	600	-320	150	E11040.184
184.1	320-014-155	HEADPC-1.5 CO2 THRD SS	1½	SA-479 304/304L	650	-320	150	E11040.184
184.2	320-014-15SPE	HEADPC-1.5 CO2 PLAIN END 316S	1½	SA-479 304/304L	650	-320	150	E11040.184
184.3	320-151-15	HEADPC 1.5"CO2 X 1" MNPT	1½	B16 C36000 H02	600	-320	150	E11040.184
184.4	326-009-15	HEADPC-1.5 NITROUS OXIDE	1½	SB-283 C37700	600	-320	150	E11040.184
185	320-028-20	Head Piece	2	B16 C36000 H02	600	-320	150	E11040.185
185.1	320-108-20	Head Piece	2	B16 C36000 H02	600	-320	150	E11040.185
185.2	320-028-20S	HEADPC-2 CO2 THRD SS	2	SA-479 304/304L	650	-320	150	E11040.185
185.3	320-028-20SPE	HEADPC 2" CO2 PLAIN END 316S	2	SA-479 316/316L	650	-320	150	E11040.185
186	320-035-30	Head Piece	3	B16 C36000 H02	600	-320	150	E11040.186
186.1	320-109-30	Head Piece	3	B16 C36000 H02	600	-320	150	E11040.186
187	320-048-10	Male Adapter	1	B16 C36000 H02	600	-320	150	E11040.187
188	320-049-15	Male Adapter	1½	B16 C36000 H02	600	-320	150	E11040.188
189	320-050-20	Male Adapter	2	B16 C36000 H02	600	-320	150	E11040.189
190	320-051-30	Male Adapter	3	B16 C36000 H02	600	-320	150	E11040.190
191	320-079-20	Male Adapter	2	B16 C36000 H02	600	-320	150	E11040.191
192	320-080-15	Male Adapter	1½	B16 C36000 H02	600	-320	150	E11040.192
193	ASK-40-0124	Hex Brass Bushing with 3 Purge Ports	1	B16 C36000 H02	600	-320	150	E11040.193
194	ASK-40-0076	Hex Brass Bushing with 3 Purge Ports	1½	B16 C36000 H02	600	-320	150	E11040.194
195	ASK-40-0077	Hex Brass Bushing with 3 Purge Ports	2	B16 C36000 H02	600	-320	150	E11040.195
195.1	ASK-40-0077SPEC	BUSHING-CO2 NO PURGE 2F 1-1/2 M	2F x 1½M	B16 C36000 H02	600	-320	150	E11040.195
196	ASK-40-0078	Hex Brass Bushing with 3 Purge Ports	2	B16 C36000 H02	600	-320	150	E11040.196
197	ORIFICE-PRX-*	Orifice Plate	1.625	B16 C36000 H02	600	-320	150	E11040.197
198	590-123-15	Fixed End Cast with Integral Flange	1½	B584 C86500	600	-320	150	E11040.198
198.1	590-123-15ORF	F.ENIT 1.5,INT FLG ORF THD	1½	B584 C86500	600	-320	150	E11040.198
199	580-123-15	Fixed End Cast with Integral Flange	1½	B584 C86500	600	-320	150	E11040.199
199.1	580-123-15ORF	F.EARG 1.5 INT FLG,ORF,THD	1½	B584 C86500	600	-320	150	E11040.199
200	540-123-15	Fixed End Cast with Integral Flange	1½	B584 C86500	600	-320	150	E11040.200
200.1	540-123-15ORF	F.EOXY 1.5 INT FLG,ORF THD	1½	B584 C86500	600	-320	150	E11040.200
201	590-119-25	Head Piece Adapter	2½	B21 C46400 H02	600	-320	150	E11040.201
202	580-132-25	Head Piece Adapter	2½	B21 C46400 H02	600	-320	150	E11040.202
203	540-119-30	Head Piece Adapter	3	B21 C46400 H02	600	-320	150	E11040.203
204	ASK-40-0148S	Flange SW w/Tongue	1	SA-479 304/304L	650	-425	150	E11040.204
205	ASK-40-0152S	Flange SW w/Tongue	1½	SA-479 304/304L	650	-320	150	E11040.205
206	ASK-40-0156S	Flange BW w/Tongue	2	SA-479 304/304L	650	-320	150	E11040.206
207	ASK-40-0149S	Flange SW w/Groove	1	SA-479 304/304L	650	-320	150	E11040.207
208	ASK-40-0153S	Flange SW w/Groove	1½	SA-479 304/304L	650	-425	150	E11040.208
209	540-000-15	NUT-OXY 1.5"	1½	SB-505 C86500	650	-320	150	E11040.209
209.1	540-000-15LH	NUT-OXY 1.5" LH	1½	SB-505 C86500	650	-320	150	E11040.209
209.2	540-055-15	NUT-OXY 1.5" 316L	1½	SA-479 304/304L	650	-320	150	E11040.209
210	540-005-30	NUT-OXY 3"	3	SB-505 C86500	650	-320	150	E11040.210
210.1	540-093-30	NUT-OXY 3"	3	SA-479 304/304L	650	-320	150	E11040.210
210.2	540-059-30	NUT-OXY 3" 316L	3	SA-479 316/316L	650	-320	150	E11040.210
211	540-010-20	NUT-OXY 2"	2	SB-505 C86500	650	-320	150	E11040.211
211.1	540-010-20\$	NUT-OXY 2" SS	2	SA-479 316/316L	650	-320	150	E11040.211
212	580-000-25	NUT-ARG 2.5"	2½	SB-505 C86500	650	-320	150	E11040.212

ORIGINAL

THIS IS PART OF CRN 0H6700.5R3

Technical Standards and Safety Authority Boilers and Pressure Vessels Safety Program

Material (note 2) Design P (psi) MDMT Design Temp (°F) Calculation

UNLESS OTHERWISE SPECIFIED	DESIGN BY	\A/ ID	DATE 10/01/0011
INTERPRET PER ASME Y14.5-2009		WJR	12/21/2011
1. THE FOLLOWING TOLERANCES APPLY: .XX: ±.01" .XXX: ±.005" FRACTIONS: ± 1/32" ANGLES" ±0.5°	DRAWN BY	PGZ	DATE 04/05/2012
2. ALL DIMENSIONS ARE INCHES.	CLIECKED BY		DATE
3. REMOVE ALL BURRS AND SHARP EDGES .015 MAX	CHECKED BY	BL	DATE 3/4/2022
MACHINED SURFACE TO BE 125 MICR-INCHES OR BETTER.	APPROVED BY	JDE	DATE 03/17/2022

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SCOPE OF REGISTRATION - CGA STANDARD CRYOGENIC LIQUID TRANSFER CONNECTIONS



DWG NO. CRN-D-08051 REV. C

THIRD ANGLE PROJECTION

B SHEET: SHEET 3 OF 4

Α

В

3 SCOPE OF CRN REGISTRATION Material (note 2) Design P (psi) MDMT Design Temp (°F) No. Part **Product Description** Size Calculation 212.1 580-059-25 2½ SA-479 316/316l -320 E11040.212 NUT-ARG 2.5" 316L 650 150 212.2 580-093-25 NUT-ARG 2.5" 304 SS 21/2 SA-479 304/304L 650 -320 150 E11040.212 -320 213 580-002-15 NUT-ARG 1.5" 1½ SB-505 C86200 650 150 E11040.213 213.1 580-055-15 NUT-ARG 1.5" 316L 1½ SA-479 316/316 650 -320 150 E11040.213 1½ SB-505 C86200 -320 E11040.214 214 590-000-15 NUT-NIT 1.5" 650 150 214.1 590-055-15 NUT-NIT 1.5" 316L 1½ SA-479 316/316 650 -320 150 E11040.214 215 590-002-25 NUT-NIT 2.5" 21/2 SB-505 C86200 650 -320 150 E11040.215 215.1 590-093-25 NUT-NIT 2.5" 304 2½ SA-479 304/304L 650 -320 150 E11040.215 В 215.2 -320 590-108-25 NUT-NIT 2.5" SST 2½ SA-479 316/316 650 150 E11040.215 215.3 2½ 590-059-25 NUT-NIT 2.5" 316 SS SA-479 316/316 650 -320 150 E11040.215 216 590-088-30 3 SB-148-C95500 650 -320 150 E11040.216 NUT-NIT 3" BRONZE 217 320-015-10 NUT-CO2 1" 1 B16 C36000 H02 650 -320 150 E11040.217 SA-479 304/304L 217.1 -320 320-060-10 NUT-CO2 1" SS 1 650 150 E11040.217 218 320-008-15 NUT-CO2 1.5" 1½ B16 C36000 H02 650 -320 150 E11040.218 218.1 1½ 650 -320 150 320-070-15 NUT-CO2 1.5" SS SA-479 304/304l E11040.218 219 320-027-20 NUT-CO2 2" 2 SB-505 C86200 650 -320 150 E11040.219 219.1 320-027-20S NUT-CO2 2" SS 2 SA-479 304/304 650 -320 150 E11040.219 220 320-034-30 NUT-CO2 3" 3 SB-505 C86200 650 -320 150 E11040.220 221 NUT-CO2 4" 4 SB-505 C86200 650 -320 150 E11040.221 320-041-40 222 326-000-10 **NUT-NITROUS OXIDE 1"** 1 B16 C36000 H02 650 -320 150 E11040.222 223 326-005-15 **NUT-NITROUS OXIDE 1.5"** 1½ B16 C36000 H02 650 -320 150 E11040.223 3 224 450-000-30 NUT-LNG 3" SB-505 C95200 650 -320 150 E11040.224 THIS IS PART OF CRN 224.1 450-000-30S 3 SA-479 304/304 650 -320 150 E11040.224 NUT-LNG 3" SST 0H6700.5R3 224.2 450-000-30S-316 NUT-LNG 3" 316 S/S 3 SA-479 316/316 650 -320 150 E11040.224 Technical Standards and Safety Authority 225 600-000-15 NUT-ARGOMIX 1.5' 1½ SB-505 C95500 650 -320 150 E11040.225 **Boilers and Pressure Vessels Safety** 226 600-000-25 NUT-ARGOMIX 2.5" 21/2 SB-505 C95500 650 -320 150 E11040.226 Program 227 450-003-30 F.E.-LNG 3" W/GASKET ASSY 3 B505 93200 450 -320 150 E11040.227 227.1 450-003-30C836 F.E.-LNG 3" C83600 3 B62 C83600 450 -320 150 E11040.227 227.2 450-003-30M F.E.-LNG 3" 3 B505 93200 450 -320 150 E11040.227 227.3 450-003-30S F.E.-LNG 3" 304S/S W/3"FNPT 3 SA-479 304/304L 650 -320 150 E11040.227 227.4 50-003-30BW316 F.E.-LNG 3" 316 S/S W/BWE 3 SA-479 316/316 650 -320 150 E11040.227 227.5 450-003-30SM F.E.-LNG 3" 304SST FNPT 3 SA-479 304/304 650 -320 150 E11040.227 227.6 SA-479 316/316l -320 450-003-SM316 F.E -LNG 3"316 S/S W/3"FNPT 3 650 150 E11040.227 227.7 450-003-30SMPS F.E LNG 3" 304S/S W/3"PIPE SKT 3 SA-479 304/304 650 -320 150 E11040.227 227.8 450-003-30S-PS F.E.LNG 3" 304S/S W/3"PIPE SKT 3 SA-479 304/304 650 -320 150 E11040.227 228 3 SB-505 C85700 -320 150 450-004-30 HEADPC-3 LNG W/RETAINER ASSY. 450 E11040.228 228.1 450-004-30 HEADPC-3" LNG 3 SB-505 C85700 450 -320 150 E11040.228 228.2 3 -320 450-010-30M HEADPC-3"LNG W/2"FNPT BRASS SB-505 C85700 450 150 E11040.228 Α 3 -320 150 229 450-004-30S HEADPC-3" LNG SS W/3"FNPT SA-479 304/304 650 E11040.229 229.1 450-004-30-316 HEADPC 3" LNG 316 S/S W/BWE 3 SA-479 316/316l 650 -320 150 E11040.229 -320 229.2 450-010-30M316 HEADPC-3" LNG 3"FNPT 316 SST 3 SA-479 316/316L 650 150 E11040.229 ORIGINAL UNLESS OTHERWISE SPECIFIED DATE 12/21/2011 **DESIGN BY** Title: WJR INTERPRET PER ASME Y14.5-2009 SCOPE OF REGISTRATION - CGA DRAWN BY DATE 04/05/2012 **PGZ** STANDARD CRYOGENIC LIQUID 2. ALL DIMENSIONS ARE INCHES. DATE 3/4/2022 3. REMOVE ALL BURRS AND SHARP EDGES CHECKED BY TRANSFER CONNECTIONS CRYOGENICS MACHINED SURFACE TO BE 125 MICR-INCHES OR BETTER. Owner SCYI APPROVED BY JDE DATE 03/17/2022 5. DO NOT SCALE DRAWING. THIS DRAWING AND THE INFORATION OR DATA CONTAINED HEREIN ARE CONSIDERED PROPRIETARY TO ACME CRYGGENICS, INC. AND IS NOT TO BE COPIED, REPRODUCED, DUPLICATED OR DISCLOSED TO OTHER IN WHOLE OR IN ARRY WITHOUT THE PRIOR WRITTEN CONSENT OF ACME CRYGGENICS, INC. THE DRAWING SHOULD BE RETURNED AS SOON AS IT HAS SERVED THE PURPOSES FOR WHICH IT IS FURNISHED AND WHILE IN THE POSSESSION OF THE RECURS! THIRD ANGLE PROJECTION CRN-D-08051 DWG NO. **Project No.:** E210020 B | SHEET: SHEET 4 OF 4 HOULD BE PROPERLY SAFEGUARDED AGAINST DISCLOSURE TO ANYONE EXCEPT EMPLOYEES WHO REQUIRE IT FOR WORK

OF A JOB. THIS RESTRICTION SHALL NOT APPLY TO INFORMATION OR DATA CONTAINED HEREIN WHICH IS AVAILABLE TO SCALE: 1:1 REV. 3 2