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|------------------|--------------|-----------------|
| TANK TYPE | MOUNT | LOCATION |
| COPV | POLAR | POLAR |



This composite overwrapped pressure vessel (COPV) Helium tank is 16.7" (424 mm) in diameter and 29.6" (752 mm) in length. The tank is constructed of a CP Titanium center cylinder welded to two CP Titanium end domes and overwrapped with T1000 carbon fiber. Mounting is provided by two polar bosses located on the tank centerline axis.

ATK Part Number 80496-1

SIZE: 16.7" DIA X 29.6" LONG

SIZE: 424 mm DIA X 752 mm LONG

ISO 9001 & AS 9100 REGISTERED

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|-----------------------------|-----------------------------|----------------------------|
| APPLICABLE DOCUMENTS | TANK CHARACTERISTICS | QUALIFICATION TESTS |
|-----------------------------|-----------------------------|----------------------------|

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|---------------------------|-----------|
| Acceptance Test Procedure | 50-000668 |
| Cleaning | 3992 |

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|--------------------------|-------|-------------------------------|-------|
| Operating Pressure, psig | 4,800 | Total Volume, in ³ | 4,967 |
| Proof Pressure, psig | 6,000 | Max Design Wt, lbs | 28.00 |
| Cryo Proof, psig | N/A | Minimum Wall, inch | 0.018 |
| Burst Pressure, psig | 7,200 | | |
| Actual Burst, psig | 8,297 | for P/N 80436 | |

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|-----------------------------------|
| Qual by similarity to P/N 80436-1 |
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Notes:

1. This tank is similar to 80436-1.

ACCEPTANCE TEST

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| Examination of Product Preliminary |
| Volumetric Measurement @ Ambient |
| Proof Pressure Test @ Ambient |
| Volumetric Measurement @ Ambient |
| Volumetric Capacity @ MEOP |
| External Leak Test |
| Weld Quality Inspection |
| Examination of Product Final |
| Final Clean |

PROGRAM INFORMATION

| | |
|----------------------------|--------------|
| Program | Selene Winds |
| Customer | Eagle/MELCO |
| Customer Installed Device | No |
| Customer Controlled Device | No |

TANK CHARACTERISTICS (Metrics)

| | | | |
|-------------------------|--------|-------------------|-------|
| Operating Pressure, bar | 330.94 | Total Volume, l | 81 |
| Proof Pressure, bar | 413.68 | Max Design Wt, kg | 12.70 |
| Cryo Proof, bar | N/A | Minimum Wall, MM | 0.457 |
| Burst Pressure, bar | 496.41 | | |
| Actual Burst, bar | 572.05 | for P/N 80436 | |

VACUUM RATED

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|-----|
| YES |
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HEMISPHERE FORGINGS

| HEMI P/N | QTY | SUPPLIER | Die No |
|-------------|-----|----------|--------|
| 80-436061-1 | 2 | ARCTURUS | 3852 |

ROLLED AND SEAM WELDED CYLINDER

| P/N | QTY | SIZE |
|-------------|-----|-----------------------------|
| 80-436100-1 | 1 | 15.87 in ID X 16.75 in LONG |

TUBE TYPE AND SIZE (in.)

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|---------------------------------------|-------------------------|
| Transition Tube Titanium to 304L CRES | SIZE |
| | 0.250 O.D. x 0.035 Wall |

