Twin Otter Series 400

VERSATILITY THAT WORKS
Versatility and reliability on water, snow, tundra or tarmac.
The best selling 19 seat regional aircraft of all time, the Viking de Havilland Twin Otter has proven itself to be a robust and reliable multi-purpose aircraft, capable of operating in extreme conditions due to its rugged construction and STOL performance.

With the simplicity of an equalized maintenance program, the dependability of Pratt & Whitney PT6A-34 engines, and a proven design, the Series 400 Twin Otter ensures reliability in remote unimproved airfields and varied operating environments.

Available as standard landplane or optional straight or amphibious floats, wheel skis, or intermediate flotation gear (“Tundra Tires”), with multiple quick change interior configurations available, the Twin Otter Series 400 is a versatile aircraft that can be utilized for operations from sub-arctic research to tropical military and government operations, regional commuters and private RV use.

Combining a proven design with modern technology, the new Viking DHC-6 Twin Otter Series 400 will provide owners and operators with “Versatility That Works”.

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Product Information

**General Information:**
- Max. Takeoff Weight: 12,500 lbs. (5,670 kg.)
- Max. Landing Weight: 12,300 lbs. (5,579 kg.)
- Number of Crew: 1 or 2
- Number of Passengers: 19
- Fuel Capacities:
  - Total – 378 US Gallons (1,432 litres)
  - Optional Long Range – 89 US Gallons (336 litres)

**Cabin Dimensions:**
- Cabin Length: 18 ft. 5 in. (5.61 m)
- Cabin Height: 4 ft. 11 in. (1.50 m)
- Cabin Width: 5 ft. 9 in. (1.75 m)
- Cabin Volume (usable): 384 cu. ft. (10.87 cu. m)
- Cabin Doors (left side): 50 in. X 56 in. (1.27 m x 1.42 m)
- Cabin Door (right side): 30 in. X 45.5 in. (0.76 m x 1.16 m)

**Engines:**
- Two, Pratt & Whitney Aircraft of Canada Limited, PT6A-34, single stage, free-turbine engines.

**Airframe:**
- Configuration and Construction: All metal, non pressurized, high-wing monoplane with fixed tricycle (steerable nose) landing gear.

**Propellers:**
- Two Hartzell HC-B3TN three bladed reversible pitch, constant speed, fully feathering propellers.

**Standard Aircraft:**
- Basic Weight: 7,100 lbs. (3,221 kg.)

**Performance Summary:**
- STOL Takeoff and Landing Distance:
  - Takeoff distance to 50 ft.: 1,200 ft (366 m)
  - Landing distance from 50 ft.: 1,050 ft (320 m)
- Maximum Cruise Speeds, TAS:
  - Sea Level: 170 kt
  - 5,000 ft.: 181 kt
  - 10,000 ft.: 182 kt
- Enroute Rate of Climb at Sea Level:
  - (both engines at max. climb power): 1,600 ft/min
- Service Ceiling (Rate of Climb 100 ft/min):
  - (both engines at max. climb power): 25,000 ft. (7,620 m)
- Fuel Burn at Economy Cruise:
  - 146 KTAS at 10,000 ft.: 468.2 lbs/hour (0.311 nm/lb of fuel)
- Payload Range – at max cruise speed:
  - Payload for 100 nautical mile (185 km) range: 4,061 lbs. (1,842 kg.)
  - Payload for 400 nautical mile (741 km) range: 3,031 lbs. (1,375 kg.)
- Maximum Range (Zero Payload):
  - With standard tankage (2,576 lbs. (1,169 kg.) fuel): 799 nm (1,480 km)
  - With long range tankage (3,190 lbs. (1,447 kg.) fuel): 989 nm (1,832 km)
- Maximum Endurance:
  - With standard tankage (2,590 lbs. (1,175 kg.) fuel): 6.94 hrs.
  - With long range tankage (3,190 lbs. (1,447 kg.) fuel): 8.76 hrs.
### Standard Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRFRAME</td>
<td>Airsuit Door&lt;br&gt;Cargo Door&lt;br&gt;19 Seat Commuter Interior&lt;br&gt;Rear Baggage Compartment&lt;br&gt;Forward Baggage Compartment&lt;br&gt;Corrosion Prevention Primer</td>
</tr>
<tr>
<td>POWER PLANT</td>
<td>P/N A4 Engines&lt;br&gt;Harrel Three Blade Propeller</td>
</tr>
<tr>
<td>ENGINE FIRE DETECTION</td>
<td>Fire Detecting&lt;br&gt;Fire Extinguishing</td>
</tr>
<tr>
<td>VENTILATION</td>
<td>Heating System&lt;br&gt;Temperature Control System&lt;br&gt;Cabin Gasper Vents&lt;br&gt;Passenger Gasper Vents</td>
</tr>
<tr>
<td>ELECTRICAL</td>
<td>24 Volt DC&lt;br&gt;Main Battery&lt;br&gt;External Power&lt;br&gt;No AC Electrical</td>
</tr>
<tr>
<td>PNEUMATIC SYSTEM</td>
<td>Blend Air System&lt;br&gt;Low Pressure Pneumatic System</td>
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### Optional Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRFRAME</td>
<td>External Paint&lt;br&gt;Bubble Windows&lt;br&gt;Cockpit Sunriver System&lt;br&gt;Air Operable Door&lt;br&gt;Forward Cargo Door and&lt;br&gt;Boarding Ladder&lt;br&gt;External Break-In Markings&lt;br&gt;2nd Language Internal Markings&lt;br&gt;2nd Language External Markings&lt;br&gt;Third Rail Seat Track</td>
</tr>
<tr>
<td>EQUIPMENT / FURNISHINGS</td>
<td>VIP Interiors&lt;br&gt;Thirteen Seat Utility Interior&lt;br&gt;Camera Provision&lt;br&gt;Lavatory Installation(s)&lt;br&gt;Self-Inflation&lt;br&gt;Stretch Value Racking&lt;br&gt;Leather Seat Covers&lt;br&gt;Gol Cart Towing</td>
</tr>
<tr>
<td>ICE AND RAIN PROTECTION</td>
<td>Full Airframe De-Ice Package&lt;br&gt;Propeller De-Ice&lt;br&gt;Heated Glass Windshield</td>
</tr>
<tr>
<td>AIR CONDITIONING</td>
<td>Air Conditioner</td>
</tr>
<tr>
<td>ELECTRICAL</td>
<td>Cabin Emergency Lighting System&lt;br&gt;28V DC Plug-In, Rear Cabin&lt;br&gt;OXYGEN SYSTEM</td>
</tr>
<tr>
<td>MISSIONIZATION</td>
<td>See Guard 400 section for details</td>
</tr>
<tr>
<td>FUTURE OPTIONS</td>
<td>3 Ax Auto Pilot&lt;br&gt;ADA Indicator&lt;br&gt;Honeywell RAAS (Runway Awareness and Advisory System)&lt;br&gt;Coupled I/NAV and V/NAV&lt;br&gt;LPV Approach Capability&lt;br&gt;Honeywell Smart View (Synthetic Vision)</td>
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### Footnotes
- Photos from top to bottom: Nose access combination hatch and cargo door. Portside rear access doors for ease of maintenance. Rear baggage compartment with aviation key cover. 3 seats. 2 in front. 18 in rear. 21 passengers. 10 luggage."
Optional Interiors

The Twin Otter Series 400 features multiple interior configurations that are easily interchangeable with optional 3rd seat rail installation.

**VIP CONFIGURATION**
- Double VIP Club
- 2 Standard Seats
- Slim Line Cabinets
- Aft Lavatory

**EXECUTIVE CONFIGURATION**
- 7 Forward Facing VIP Seats
- 3 Standard Seats
- Galley
- Aft Lavatory

**CORPORATE SHUTTLE CONFIGURATION**
- Single VIP Club
- 10 Standard Seats
- Slim Line Cabinets

**MEDICAL EVACUATION CONFIGURATION**
- 1 or 2 Single Stretchers (Quick Change Installation)
- 8 Standard Seats
The Twin Otter is renowned for its ability to perform in a multitude of environments, providing operators with versatility in a single platform. When equipped with seaplane or amphibious floats, the Twin Otter can reach remote waterfront destinations while still exhibiting STOL (Short Take Off & Landing) capabilities. The unique design of the retractable landing gear in the amphibious floats allows the Twin Otter flexibility from both land and water based operations in a single flight plan.

Wipline 13000 floats feature fluted hull design with deadrise bottoms and extra buoyancy to provide superior handling in high seas and wind, while the flat wide top decks and built-in steps make boarding safe for crew and passengers. To further improve safety, the floats are designed and installed so an emergency no-flap landing is not only possible but uneventful.

The Twin Otter configured with Wipline floats has been proven worldwide, from the lakes and coastline of the Canadian north to the open water conditions of the Maldives archipelago, and is the aircraft of choice for operations requiring water access.

**Float Operations**

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**WEIGHT**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight (kg)</th>
<th>Weight (lbs)</th>
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<tbody>
<tr>
<td>Amphibian System Total Weight</td>
<td>971</td>
<td>2,141</td>
</tr>
<tr>
<td>Amphibian Exchange Weight</td>
<td>697</td>
<td>1,538</td>
</tr>
<tr>
<td>Seaplane System Total Weight</td>
<td>659</td>
<td>1,452</td>
</tr>
<tr>
<td>Seaplane Exchange Weight</td>
<td>86</td>
<td>188</td>
</tr>
<tr>
<td>Gross Weight</td>
<td>5,670</td>
<td>12,500</td>
</tr>
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**FLOAT DIMENSIONS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement (ft)</th>
<th>Measurement (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>9.88 m / 32'5&quot;</td>
<td>32 ft 5 in (0.99 m)</td>
</tr>
<tr>
<td>Height – hull</td>
<td>1.14 m / 3’9&quot;</td>
<td>37 in (0.35 m)</td>
</tr>
<tr>
<td>Width – hull</td>
<td>1.3 m / 4’3&quot;</td>
<td>51 ft (15.54 m)</td>
</tr>
<tr>
<td>Float Locker capacity (each)</td>
<td>22.7 kg / 50 lbs</td>
<td>22 ft 8 in (6.9 m)</td>
</tr>
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**DISPLACEMENT ON FRESH WATER**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight (kg)</th>
<th>Weight (lbs)</th>
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<tbody>
<tr>
<td>Amphibious (100%)</td>
<td>5,644</td>
<td>12,442</td>
</tr>
<tr>
<td>Amphibious (80%)</td>
<td>6,270</td>
<td>13,824</td>
</tr>
<tr>
<td>Seaplane (100%)</td>
<td>5,826</td>
<td>12,844</td>
</tr>
<tr>
<td>Seaplane (80%)</td>
<td>6,473</td>
<td>14,271</td>
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**PERFORMANCE**

- **Engine**: PT6A-34
- **Take off run (land)**: 406 m / 1,333 ft
- **Take off over 50 ft obstacle (land)**: 562 m / 1,843 ft
- **Take off run (water)**: 374 m / 1,227 ft
- **Take off over 50 ft obstacle (water)**: 599 m / 1,965 ft
- **Rate of climb (per min)**: 427 m / 1,400 ft

...the Canadian made Series 400 can operate from dock to doorstep on straight or amphibious floats, moving passengers and cargo from land-based airports and remote waterfront locations.
The Guardian 400 is the cost effective solution for twenty first century surveillance, sovereignty and SAR (Search & Rescue) due to its low acquisition/operating costs and flexible architecture, allowing the user to mix and match sensors and interior layouts to meet their specific mission profiles.

A medium range maritime patrol and critical infrastructure platform based on the Twin Otter Series 400 aircraft, the Guardian 400 has a modern sensor package allowing for flexibility and versatility. The aircraft can be outfitted with an electro-optical and infrared imaging turret, 360 degree digital colour radar system, extended range internal patrol tank, four crew observation stations, air operable cargo door, search light, galley, and lavatory.

Designed for extreme operating environments, the Guardian 400 can be equipped with wheels, skis, or floats with a gross weight increase to 12,500lbs*, allowing for additional fuel and extended range for operational sorties over ten hours in duration.

Integrating modern mission technology with proven STOL performance, the DHC-6 Twin Otter Guardian 400 will provide government and military organizations with “Versatility That Works”.

**NOTE:** All data is preliminary and subject to change without notice. Dimensions are approximate only and may vary depending on aircraft configuration selected and loading conditions.

*12,500lbs is the Transport Canada maximum take off weight (MTOW) - 14,000lbs MTOW restricted category for ... local airworthiness approval). This configuration is used by the Canadian & US Military, and several other countries.
In Operation Around the World

SWITZERLAND
MALDIVES
SEYCHELLES
PERU
CANADA
AUSTRALIA
SEYCHELLES
MALDIVES
MALDIVES
PAPUA NEW GUINEA
LIBYA