

# Tundra

Refrigeration Air Dryers



**LOW**  
Carbon  
Footprint



## Tundra Refrigerant Air Dryers

The new generation of Hi-line Fridge Dryers has been designed with energy efficiency and reliability at the forefront.

Minimal energy consumption is crucial in today's competitive environment, the new Tundra dryer from Hi-line will help drive down your energy costs by minimising pressure drop and lowering absorbed power. The Direct Expansion technology offers a constant +3°C dewpoint at all times, unlike chilled mass dryers which can be as high a +10°C during its thermal cycle.

The new single cell heat exchanger gives the most efficient transfer of heat at the lowest energy cost. The Tundra has no PCB boards or controllers that tend to be prone to faults and expensive to replace. By using proven worldwide components within the Tundra refrigerant system reliability is ensured. It also features within that refrigerant system, liquid receivers, line dryers, thermostatic expansion valves and a series of safety features to protect the Freon compressor and its components. The Tundra range has been designed to an engineering specification rather than a budget.

Larger dryers up to 9988 cfm are available on short lead-time, although our standard range as featured here are available ex-stock at our Burton factory for next day delivery.

High Pressure and Thermal Mass are available to order, as is a full range of high performance oil and particle filters to suit each dryer.

## Zero Loss Condensate Removal

The Tundra dryer range comes with the option to upgrade to a Hi-line ZLD zero loss level sensing auto drain.

Standard product features our very own HTD (Hi-line Timer Drain) which is now well established as an industry standard in condensate removal. The new ZLD range of condensate zero loss drains is part of a new range of drains that operate up to 19,000 m3/hour for use on dryers, after coolers and receivers.



## Hi-line Industries Technical Specifications

Fridge Model	cfm	m3/hr	m3/min	Conn	Weight Kg	Dimensions H x L x W mm	Power Supply	Refrigerant
TUNDRA20 (ZL)	20	34	0.56	½"	37	600 X 740 X 480	230-1-50	R134A
TUNDRA35 (ZL)	35	59	1.00	½"	37	600 X 740 X 480	230-1-50	R134A
TUNDRA49 (ZL)	49	83	1.40	½"	67	660 X 750 X 480	230-1-50	R134A
TUNDRA69 (ZL)	69	117	2.00	½"	68	660 X 750 X 480	230-1-50	R134A
TUNDRA100 (ZL)	100	170	2.85	1"	70	660 X 750 X 480	230-1-50	R134A
TUNDRA119 (ZL)	119	202	3.70	1"	70	660 X 750 X 480	230-1-50	R134A
TUNDRA148 (ZL)	148	251	4.20	1 ½"	96	840 X 760 X 560	230-1-50	R134A
TUNDRA200 (ZL)	200	340	5.67	1 ½"	98	840 X 760 X 560	230-1-50	R134A
TUNDRA235 (ZL)	235	399	6.60	1 ½"	101	840 X 760 X 560	230-1-50	R134A
TUNDRA290 (ZL)	290	493	8.20	1 ½"	126	900 X 730 X 600	230-1-50	R134A
TUNDRA325 (ZL)	325	552	9.20	2"	171	1160 X 800 X 740	230-1-50	R134A
TUNDRA410 (ZL)	410	696	11.60	2"	204	1160 X 800 X 740	230-1-50	R134A
TUNDRA500 (ZL)	500	849	14.15	2"	232	1160 X 800 X 740	230-1-50	R134A
TUNDRA605 (ZL)	605	1028	17.13	2 ½"	250	1440 X 700 X 800	440-3-50	R134A
TUNDRA700 (ZL)	700	1189	19.83	2 ½"	280	1140 X 700 X 800	440-3-50	R134A
TUNDRA795 (ZL)	795	1350	22.50	2 ½"	350	1440 X 700 X 800	440-3-50	R134A
TUNDRA885 (ZL)	885	1503	25.00	3"	450	1537 X 1120 X 1000	440-3-50	R134A
TUNDRA1040 (ZL)	1040	1767	29.45	3"	490	1537 X 1120 X 1000	440-3-50	R134A

Performances are in accordance with ISO 7183 & 8573-1

To order with zero loss drain add 'ZL' suffix.

## Reference Conditions

**Inlet compressed air pressure: 7 barg**

**Inlet compressed air temperature: 35°C @ 100% RH**

**Ambient air temperature: 25°C**

**Minimum pressure dew point (PDP): 3°C**

## Capacity Correction for Various Operating Pressure

Pressure - barg	4	5	6	7	8	10	12	14	16
Factor (Pc)	1.25	1.14	1.06	1	0.96	0.9	0.86	0.82	0.8

Ambient Temperature - °C	10	15	20	25	30	35	40	43	45	50
Factor (Ac)	0.92	0.92	0.92	1	1.07	1.14	1.22	1.28	1.34	1.39

Inlet Temperature - °C	20	25	30	35	40	45	50	55	60
Factor (Lc)	0.85	0.85	0.85	1	1.18	1.39	1.67	1.8	1.99

## Example of dryer selection:

Which dryer is required to handle the following worst case conditions?

Maximum compressed air flow of 9 m<sup>3</sup>/min

Lowest operating pressure of 10 barg

Maximum air inlet temperature of 40°C

Maximum ambient air temperature of 35°C

Corrected Capacity is:

Actual Capacity / (Pc \* Lc \* Ac) = 9 m<sup>3</sup>/min / (0.9 \* 1.18 \* 1.14) = 10.89 m<sup>3</sup>/min

Dryer Selection is: Tundra 410 for a +3°C PDP

## General Information

- Operating pressure range 2 to 16 barg.
- Maximum inlet air temperature 60°C
- Ambient Air temperature : 0°C to 50°C
- Constant +3°C dewpoint delivered at all times, unlike thermal dryers.
- High pressure range available with pressure up to 50 barg.
- Dewpoint Indicator as standard, digital on larger models.
- Illuminated "Power On" switch
- Option of Zero Loss or HTD condensate removal.



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