



HANKISON



HPET SERIES

HIGH PRESSURE

REFRIGERATED

COMPRESSED

AIR DRYERS

PET Compressed Air Treatment

Designed for 725 psig (50 bar) operation, Hankison high pressure compressed air dryers and filters form an important part of PET blow molding compressed air installations around the world. Carrying a trusted brand name known for reliability since 1948, Hankison equipment eliminates water, solid particulates, and oil from the compressed air lines which are at the heart of every blow molding installation.

Aeronautical valve and control testing, pharmaceutical testing and packaging, and injection molding are also very common applications for the HPET Series.

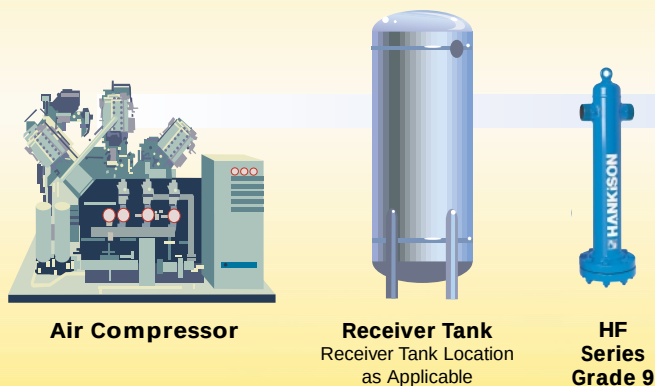


Global Certifications and Technical Services

PET blow molding installations are found all over the world and Hankison International provides the necessary support. Mandatory product certifications such as CE, CSA, CRN, and ASME are standard on all of our high pressure equipment. Whether you need to comply with a pressure vessel code or with a machinery directive, Hankison equipment will carry the necessary regulatory approvals.

Technical Service is also available worldwide through the global network of Hankison International companies and approved service providers.

Typical PET Blow Molding Compressed Air Installation



Space-Saving Heat Exchangers

Compact, plate heat exchangers maintain stable 38°F (3°C) dew points for the life of the unit.

Nondegrading foam insulates the heat exchangers to fully preserve the cooling effect.

Integrated Filter/Separator & Condensate Management

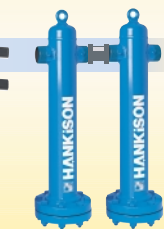
A HF Series Grade 9 Filter/Separator effectively removes large liquid loads, 3 micron particulates, and prevents moisture reentrainment.

Programmable electronic timed drains include highly accurate solid state timers with adjustments for valve open time and for the time between cycles. A rugged solenoid valve that resists clogging by particulates is used.





HPET Series



**HF Series
Grade 7**



**HF Series
Grade 3**



Efficient and Environmentally Friendly Refrigeration System

Environmentally friendly HFC refrigerants, R-134a (models up to 3 HP) and R-404a (4 HP models and above), are combined with energy efficient and reliable reciprocating and scroll compressors, respectively. The non-cycling, hermetically sealed system allow close temperature control even during rapid load changes. This provides the consistently dry air guarantee which PET blow molding applications require. A highly accurate hot gas by-pass valve maintains a 35°F (2°C) evaporator temperature without freeze-ups. Designed for reliability, the system features the necessary filter/dryers and accumulators required to maintain a clean refrigeration system and prevent liquid from returning to the compressor.

User-Friendly Instrumentation

Easy-to-read instrumentation includes:

- suction pressure gauge
- inlet temperature gauge
- outlet pressure gauge

Lights are included indicating:

- power-on
- compressor on
- high evaporator temperature
- refrigerant fault alarm

A high pressure reset switch is also standard.



Optional - Disconnect Switch

HF Series High Pressure Filters

To complete the installation, solid particulates and oil must be removed from the compressed air used for PET blow molding. A typical installation would require a 3 micron prefilter, and a 1 micron particulate filter and a 0.008 ppm (0,01 mg/m³) oil removal filter installed after the high pressure refrigerated compressed air dryer.

Hankison Grade 9, 7, and Grade 3 high pressure filters feature two-stage filter elements with corrosion resistant inner and outer cores.

Grade 9 bulk liquid and 3 micron particulate Filter/Separator: The first stage blocks bulk liquid with two stainless steel orifice tubes. The second stage captures larger particulate to 3 micron with in-depth fiber media.

Grade 7 general purpose 1 micron particulate filter: The first stage captures larger particles with alternate layers of fiber media and a media screen. The second stage captures the fine 1 micron solid particles with multiple layers of epoxy bonded, blended fiber media.

Grade 3 maximum efficiency 0.0008 ppm (0,001 mg/m³) oil removal filter: The first stage acts as a prefilter and a flow disperser. The second stage has multiple layers of matrix blended fiber media which provides the fine coalescing action required.



Typical PET Blow Molding Compressed Air Quality Specification

Pressure Dew Point	Max. Solid Particulate	Max. Oil Content
38°F (3°C)	1 Micron	0.008 ppm (0,01 mg/m ³)
ISO 8573.1 Class 4	ISO 8573.1 Class 2	ISO 8573.1 Class 1
HPET Series Refrigerated Dryer	HF Series Grade 7 Filter	HF Series Grade 3 Filter

Table 1 - Engineering Data

Model	Flow ⁽¹⁾		Pressure Drop ⁽¹⁾		MWP		Refrigeration System ⁽²⁾		Standard Voltages ⁽³⁾	In/Out Connections NPT/BSP ⁽⁴⁾	Dimensions in (mm)			Weight ⁽⁵⁾ lb (kg)	HF Series Filters	
	scfm	m³/h	psig	bar	psig ⁽⁶⁾	bar	HP	kW			H	W	D		1 Micron Model	0.0008 ppm Oil Model
HPET-1	300	515	4.1	0.28	725	50	1	1.1	1,2,3,4,5	1"	43 (1092)	38 (965)	32 (813)	370 (168)	HF7-24-8-62	HF3-24-8-62
HPET-1.5	500	859	5.8	0.40	725	50	1.5	1.98	1,2,3,4,5	1"	43 (1092)	38 (965)	32 (813)	380 (172)	HF7-24-8-62	HF3-24-8-62
HPET-2	750	1288	7.3	0.50	725	50	2	2.35	1,2,3,4,5	1-1/2"	43 (1092)	38 (965)	44 (1118)	465 (211)	HF7-32-8-62	HF3-32-8-62
HPET-3	1000	1717	11.8	0.81	725	50	3	3.69	1,2,3,4,5	1-1/2"	43 (1092)	38 (965)	44 (1118)	480 (218)	HF7-32-8-62	HF3-32-8-62
HPET-4	1250	2146	10.7	0.74	725	50	4	5.34	1,2,3,4,5	1-1/2"	43 (1092)	38 (965)	44 (1118)	590 (268)	HF7-32-8-62	HF3-32-8-62
HPET-6	1750	3005	9.5	0.65	725	50	6	7.65	1,2,3,4,5	3" or DN80	50 (1270)	48 (1219)	50 (1270)	1025 (465)	HF7-52-24-48	HF3-52-24-48
HPET-7.5	2000	3434	11.8	0.81	725	50	7.5	9.81	1,2,3,4,5	3" or DN80	60 (1524)	48 (1219)	50 (1270)	1300 (590)	HF7-52-24-48	HF3-52-24-48
HPET-10	3000	5151	11.8	0.81	725	50	10	14.06	1,2,3,4,5	3" or DN80	60 (1524)	48 (1219)	50 (1270)	1565 (710)	HF7-52-24-48	HF3-52-24-48
HPET-12	3750	6439	10.7	0.74	725	50	12	16.47	1,2,3,4,5	3" or DN80	60 (1524)	48 (1219)	50 (1270)	1585 (719)	HF7-52-24-48	HF3-52-24-48

Dimensions and weights are for reference only. Request certified drawings for construction purposes.

(1) Flow and pressure drop at MWP (Maximum Working Pressure) and at 60 Hz, 100°F, 38°C inlet and 100°F, 38°C ambient temperature

(2) Figures shown are condensing unit manufacturer's published ratings @ 35°F, 2°C evaporator and 100°F, 38°C ambient

(3) 1. 208-230/3/60 2. 460/3/60 3. 200-220/3/50 4. 400/3/50 5. 575/3/60

(4) Please specify NPT or BSP

(5) Air-cooled models. Contact factory for water-cooled weights.

(6) CSA certified models approved to 700 psig Maximum Working Pressure.

Table 2 - Correction Factors for Compressed Air Inlet Temperature and Pressure

Inlet Pressure	Inlet Temperature				
	80°F (27°C)	90°F (32°C)	100°F (38°C)	110°F (43°C)	120°F (49°C)
300 psig to MWP 20 bar to MWP	1.49	1.19	1.00	0.83	0.72

Table 3 - Correction Factors for Ambient Air Temperature

Ambient Temperature	Capacity Adjustment Factor
80°F (27°C)	1.12
90°F (32°C)	1.06
100°F (38°C)	1.00
110°F (43°C)	0.94
Water-cooled (85°F, 27°C Cooling Water)	1.15

Table 4 - Correction Factors for Outlet Pressure Dew Point

Dew Point	ISO 8573.1 Class	Factor
38°F (3°C)	4	1.0
45°F (7°C)	5	1.2
50°F (10°C)	6	1.3

Table 5 - Correction Factors for Electrical Frequency

60 Hz	1.00
50 Hz	0.83

Determining Dryer Capacity

To determine the maximum inlet flow capacity of a dryer at various operating conditions, multiply the rated capacity from Table 1 by the multipliers shown in Table 2, 3, 4, and 5. Maximum capacity using all correction factors CANNOT be more than twice the rated capacity.

EXAMPLE: How many scfm will a HPET-1.5 handle when the compressed air to be dried is at 500 psig inlet pressure, 90°F inlet temperature, 110°F ambient air temperature, 60 Hz operation, and 38°F dew point temperature is desired?

ANSWER: 500 x 1.19 x 0.94 x 1.00 x 1.00 = 559 scfm

Global Leader in Efficiently Treating Compressed Air



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MEMBER OF



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MEETING GLOBAL STANDARDS

