

## Refrigerated Gas Cooling Units

GCU SERIES





## Improving Productivity

### GCU Series

Since 1948 Hankison has been a trusted brand name known for providing innovative compressed air treatment solutions. The GCU Series non-cycling refrigerated gas cooling units are a key component for processes requiring gas cooling by offering the right combination of technology and simplicity.

Temperature sensitive applications such as surface cooling of glass molds and hot metal parts benefit from a stable supply of cool, clean process air. Blow-off operations gain efficiency by removing excess oils, dust and liquids with GCU cooling units.

#### Built for Performance and Reliability

- 316 stainless steel brazed plate heat exchangers
- No pre-filtration required
- Employs environmentally friendly HFC refrigerants
- Exiting gas temperatures ranging 45 -50°F may be achieved

#### Integral Filtration

- Standard filter/separator removes particles down to 3 micron in size and liquid to 5 ppm w/w
- Optional high efficiency filtration removes solid particles to 0.01 micron and remaining oil content to 0.008 ppm/w

#### User-Friendly Instrumentation

- Power on light
- On/off switch
- Refrigerant fault alarm
- Gas temperature indicator

#### emm™ Energy Management Monitor

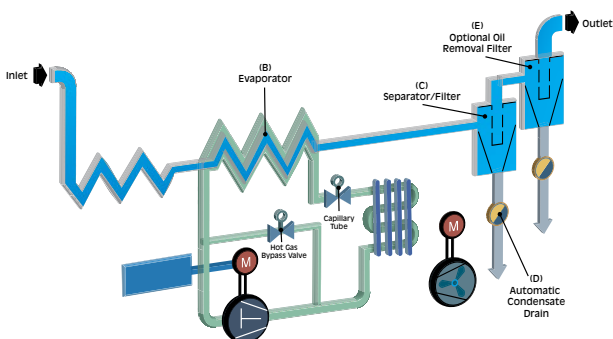
- User-friendly operator interface with 10 language display
- Demand drain push-to-test button
- Operator alert indicates service required or system fault
- Features "schedule mode"- enables users to schedule unit operation in accordance with their work schedule
- Automatic service intervals can be set for preventative maintenance
- GCU 2.0-3.5 - Remote monitoring through the RS-485 port
- Standard NO and NC voltage-free alarm contacts



# Product Specifications

## How it Works

Warm compressed air enters the air-to-refrigerant (evaporator) Heat Exchanger (B) where it is cooled by a hermetically sealed refrigeration system. As the air is cooled, water vapor condenses and is removed by the Separator/Filter (C) and discharged from the dryer by an Automatic Drain (D). Air then goes through a Oil Removal Filter (optional) (E). Clean, filtered air exits the cooling unit.



## GCU Series Product Specifications

Model	Rated Flow <sup>1</sup>		Voltages	Power <sup>2</sup>	Connection <sup>3</sup>	Dimensions			Weight	Pressure Drop with Integrated 3 Micron HF Series Grade 9 Separator/Filter	
	scfm	nm <sup>3</sup> /h				H	W	D		psig	bar
<b>GCU-0.5</b>	50	85	100-115/1/50-60 208-240/1/50-60	0.93	1" NPT	38	26	20	251	0.8	0.05
<b>GCU-0.75</b>	70	119		1.28	1" NPT	38	26	20	273	1.0	0.06
<b>GCU-1.0</b>	100	170	208-230/3/60 460/3/60 380-420/3/50 575/3/60	1.26	1-1/2" NPT	39	32	32	425	0.6	0.04
<b>GCU-1.5</b>	160	272		1.96	1-1/2" NPT	39	32	32	463	1.6	0.11
<b>GCU-2.0</b>	200	340		2.03	2" NPT	58	32	42	684	0.7	0.04
<b>GCU-2.5</b>	240	408		2.91	2-1/2" NPT	58	32	42	691	0.8	0.05
<b>GCU-3.5</b>	330	561		4.12	2-1/2" NPT	58	32	42	734	1.0	0.06

Models GCU-0.5 - 0.75: standard internal HF Snap Trap [dryer MOP 250 psig (17.6 bar), Models GCU-1.0 - 3.5: utilize electric demand drains as standard [MOP 232 psig (16.3 bar)]

Maximum inlet temperature: 120°F (49°C)

All models are certified to UL1995/CSA 22.2 No. 236-95

<sup>1</sup> Rated Flow Capacity - Standard conditions for rating gas coolers are: inlet air at 100 psig (7 bar) and 100°F (38°C) saturated, ambient air at 100°F (38°C), operating on 60 Hz power supply

<sup>2</sup> At 35°F (2°C) evaporator and 100°F (38°C) ambient

<sup>3</sup> BSP connections and DIN flanges available

## Capacity Correction Factors

To adjust gas cooler capacity for conditions other than rated, use Correction Factors from Tables 1 and 2.

**Example:** What is the capacity of a 200 scfm (340 nm<sup>3</sup>/h) model when the compressed air at the inlet is 150 psig (10.5 bar) and 100°F (38°C), and the ambient temperature is 90°F (32°C)? **Answer:** 200 scfm (340 nm<sup>3</sup>/h) (rated flow from Product Specifications Table) x 1.13 (correction factor for Inlet Temperature and Pressure from Table 1) x 1.06 (correction factor for Ambient Temperature from Table 2) = 240 scfm (408 nm<sup>3</sup>/h).

**Table 1 - Inlet Air Temperature & Pressure**

Inlet Pressure	Inlet Temperature			
	90°F 32°C	100°F 38°C	110°F 43°C	120°F 49°C
psig				
50	1.05	0.84	0.69	0.56
80	1.17	0.95	0.79	0.66
100	1.23	1.00	0.82	0.70
125	1.31	1.07	0.91	0.74
150	1.37	1.13	0.95	0.80
175	1.42	1.18	0.99	0.84
200	1.47	1.22	1.03	0.89
250	1.49	1.24	1.05	0.91

**Table 2 - Ambient Temperature**

Ambient	80°F	90°F	100°F	110°F
Temperature	27°C	32°C	38°C	49°C
<b>Multiplier</b>	1.12	1.06	1.00	0.94

## GCU Series

50 to 330 scfm  
(85 to 561 nm<sup>3</sup>/h)



## Global locations

### SPX FLOW USA

#### HANKISON HEADQUARTERS

4647 SW 40th Avenue  
Ocala, Florida 34474-5788 U.S.A.  
P: (724) 745-1555  
F: (724) 745-6040  
E: [hankison.americas@spxflow.com](mailto:hankison.americas@spxflow.com)

### HANKISON RENTAL

#### NORTHEAST

100 Commerce Drive, Suite 40  
Washington, PA 15301  
P: (724) 225-1470  
F: (724) 222-1317  
E: [hankison.rental@spxflow.com](mailto:hankison.rental@spxflow.com)

#### SOUTHWEST

1486 Champion Drive  
Terrell, TX 75160 U.S.A.  
P: (800) 379-3711  
F: (972) 563-9991  
E: [hankison.rental@spxflow.com](mailto:hankison.rental@spxflow.com)

### SPX FLOW

#### CANADA

1415 California Avenue  
Brockville, ON, Canada  
K6V 7H7  
T: (800) 267-3884  
F: (800) 318-0952  
E: [ft.canada@spxflow.com](mailto:ft.canada@spxflow.com)

### SPX FLOW

#### SOUTH AMERICA

Rua Joao Daprat, 231 b  
09600-010-SÃO Bernardo  
Do Campo, SP  
Brazil  
T: +55 (11) 2166-4050  
F: +55 (11) 2166-4070

### SPX FLOW

#### GERMANY

Konrad-Zuse-Str. 25  
D-47445 Moers Germany  
T: (+49) 2841-8190  
F: (+49) 2841-87112  
E: [info@spxdehydration.de](mailto:info@spxdehydration.de)

### SPX FLOW

#### INDIA

SPX India PVT, LTD  
Manufacturing G-72/73  
Riico Industrial Area  
Mansarovar, RAJASTHAN  
Jaipur 302 020  
India  
T: (+91) 141-2396759  
F: (+91) 141-2395048

### SPX FLOW

#### ASIA PACIFIC

5th Floor, Park Center,  
No.1568 Huashan Road,  
Shanghai China  
T: +86 (021) 2208-5840  
F: +86 (021) 2208-5866

### SPX FLOW

#### KOREA

#940-1 Yerim-Ri  
Jeonggwan-Myeon  
Gijang-Gun  
Busan  
Rep. of Korea  
T: +82 (51) 728-5360  
F: +82 (51) 728-5359

### SPX FLOW

4647 SW 40th Avenue  
Ocala, Florida 34474-5788 U.S.A.  
P: (724) 745-1555  
F: (724) 745-6040  
E: [hankison.americas@spxflow.com](mailto:hankison.americas@spxflow.com)  
[www.spxflow.com/hankison](http://www.spxflow.com/hankison)

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit [www.spxflow.com](http://www.spxflow.com).

The green "S" and "X" are trademarks of SPX FLOW, Inc.

Bulletin: GCU\_NA Version: 03/2017 Issued: 12/2015

COPYRIGHT © 2017 SPX FLOW INC.