



## International Product Guide



**DUNHAM-BUSH<sup>®</sup>**

Products that perform...By people who care

# CONTENTS

<b>Dunham-Bush Profile</b>	2
<b>Products &amp; Systems</b>	
Centrifugal Chillers	3
Water Cooled Chillers	4
Air Cooled Chillers	5
Heat Pumps	6
Water Cooled Packaged	7
Air Cooled Packaged	8
Airside Products	9
Specialty Products	10
<b>Parts &amp; Services</b>	11
<b>AHRI Testing Facilities &amp; Certifications</b>	12
<b>Our Projects</b>	13
<b>Contact Information</b>	
Regional Head Offices	



## DUNHAM-BUSH PROFILE

Dunham-Bush, one of the world's top commercial air conditioning manufacturers, has long been committed to offering creative solutions for the customers' requirements over its 100+ years history, in the heating, ventilation, air-conditioning and refrigeration (HVAC/R). Dunham-Bush offers a complete range of HVAC/R products of large chillers, heat pumps, thermal energy storage, packaged, airside system and unitary to residences, commercial buildings & industrial facilities.

By utilizing our manufacturing facilities and global network of sales and service offices, Dunham-Bush offers these products and services to all corners of the world.

Dunham-Bush proudly announces the new extended series of Medium Screw Compressor, it incorporates the latest advances in screw compressor technology and development, which includes Variable Frequency Drives (VFD) with extended capacity, enhanced efficiency performance and durability.

Dunham-Bush has also introduced the DCLC centrifugal chillers series which includes the oil free magnetic bearing chiller.

Both Dunham-Bush screw and centrifugal chiller are certified to AHRI standard 550/590 performance rating that provides unmatched performance and efficiencies.

Dunham-Bush's emphasis on environmental sustainability has paved the way for energy efficient, clean energy products, such as, Geothermal Heat Pumps and fully integrated Ice Thermal Storage Systems. Dunham-Bush is striving to be the leader in the commercialization of green technologies.

Dunham-Bush's ability and willingness to adapt our products and services according to customer requirements sets us apart from competitors. We provide total customer satisfaction by fulfilling the needs and exceeding the expectations of our valued customers ensuring the Dunham-Bush reputation of:



**DUNHAM-BUSH**®

Products that perform...By people who care

# CENTRIFUGAL CHILLERS



## DCLC-M Series - Prometheus Magnetic Bearing Chiller

Cooling Capacity:  
264 - 3095 kW (75 - 880 TR)

### Features

- High Efficiency Magnetic Bearing
- Inverter Driven Dual-Stage Compressor
- Oil Free Operation
- Low Noise with Compact Foot Print
- Improved Performance & IPLV
- AHRI Certified
- R134a/ R513a



## DCLC-D Series - Hercules Centrifugal Chiller

Cooling Capacity:  
1055 - 10550 kW (300 - 3000 TR)

### Features

- Dual-Stage Compressor
- Advanced Microprocessor Controller
- Touch Screen Control Panel
- VFD (Optional)
- AHRI Certified
- R134a

# WATER COOLED CHILLERS



## WCFX-E Series - Poseidon Water Cooled Screw Chiller

Cooling Capacity: 211 - 3517 kW (60 - 1000 TR)

### Features

- High Efficiency Vertical Screw Compressor
- Flooded Shell & Tube Evaporator / Condenser
- Touch Screen Control Panel
- Improved Performance & IPLV
- AHRI Certified
- R134a



## WCFX-V (VFD) Series - Poseidon Water Cooled Screw Chiller

Cooling Capacity: 457 - 2638 kW (130 - 750 TR)

### Features

- High Efficiency Vertical Screw Compressor
- Inverter Driven (VFD) Compressor
- Flooded Shell & Tube Evaporator / Condenser
- Touch Screen Control Panel
- Improved Performance & IPLV
- AHRI Certified
- R134a



## WCHX-A Series - Hyperion Water Cooled Screw Chiller

Cooling Capacity: 300 - 1467 kW (85 - 400 TR)

### Features

- Semi-Hermetic Screw Compressor
- High Efficiency & COP
- Advance Microprocessor Controller
- AHRI Certified
- R134a



## WCS Series - Proteus Water Cooled Scroll Chiller

Cooling Capacity from 42 - 218 kW (12 - 62 TR)

### Features

- Multiple Scroll Compressors
- Patented Shell & Tube Evaporator / Condenser
- High Efficiency & COP
- Microprocessor Based Controller
- R407C

# AIR COOLED CHILLERS



## AVX-A Series - Achelous Air Cooled Screw Chiller

Cooling Capacity: 338 - 1929 kW (96 - 548 TR)

### Features

- High Efficiency Vertical Screw Compressor
- Flooded Shell & Tube Evaporator
- Advanced Microprocessor Controller
- Unique Low Noise Control Design
- Suitable for High Ambient Application
- AHRI Certified
- R134a



## AVX-B (VFD) Series - Achelous Air Cooled Screw Chiller

Cooling Capacity: 406 - 1656 kW (115 - 470 TR)

### Features

- High Efficiency Vertical Screw Compressor
- Inverter Driven (VFD) Compressor
- Flooded Shell & Tube Evaporator
- Advanced Microprocessor Controller
- Unique Low Noise Control Design
- Suitable for High Ambient Application
- AHRI Certified
- R134a



## ACHX Series - Helios Air Cooled Screw Chiller

Cooling Capacity: 315 - 1545 kW (90 - 439 TR)

### Features

- High Efficiency Horizontal Screw Compressor
- Twin Compressors with Twin Refrigerant Circuit
- Advanced Microprocessor Controller
- Suitable for High Ambient Application
- Optional Micro Channel Condenser
- AHRI Certified
- R134a



## ACDS Series - Zeus Air Cooled Scroll Chiller

Cooling Capacity: 35 - 643 kW (10 - TR)

### Features

- Multiple Scroll Compressors
- High Efficiency Plate Heat Exchanger (PHE)
- High Efficiency & COP
- Available in Modular Design
- AHRI Certified
- R410a

# HEAT PUMPS



## **WCFX-HP Series Screw Heat Pump**

Cooling Capacity: 194 - 2061 kW (55 - 586 TR)  
Heating Capacity: 238 - 2504 kW (68 - 712 TR)

### **Features**

- High Efficiency Vertical Screw Compressor
- Flooded Shell & Tube Evaporator / Condenser
- Touch Screen Control Panel
- Improved Performance & IPLV
- R134a



## **WCS-HP Series Scroll Heat Pump**

Capacity: 39 - 246 kW (11 - 70 TR)

### **Features**

- Multiple Scroll Compressors
- Shell & Tube Evaporator / Condenser
- High Efficiency & COP
- Microprocessor Based Controller
- R134A / R407C



## **ACX(HR)-R Series Air Cooled Screw Heat Pump**

Cooling Capacity: 347 - 1582 kW (95 - 450 TR)  
Heating Capacity: 347 - 1582 kW (95 - 450 TR)

### **Features**

- High Efficiency Vertical Screw Compressor
- Flooded Shell & Tube Evaporator
- Advanced Microprocessor Controller
- Unique Low Noise Control Design
- R134a



## **ACDS(HP)-H Series Air Cooled Scroll Heat Pump**

Cooling Capacity: 65 - 140 kW (18 - 40 TR)  
Heating Capacity: 70 - 142 kW (20 - 40 TR)

### **Features**

- Multiple Scroll Compressors
- High Efficiency Plate Heat Exchanger (PHE)
- High Efficiency & COP
- Modular Design / Construction
- R410a

# WATER COOLED PACKAGED



## WCPS Series Floor Stand Ducted

Cooling Capacity: 18 - 599 kW (62 - 2046 MBH)

### Features

- High Efficiency Scroll Compressors
- Rigid and Compact Design
- R410A / R407C



## WCPS-FB Series Free Blow

Cooling Capacity: 20 - 64 kW (68 - 220 MBH)

### Features

- High Efficiency Scroll Compressors
- Rigid and Compact Design with Decorative Grille
- R410A / R407C



## WCP & WCPS-CH Series Ceiling Hung

Cooling Capacity: 5 - 82 kW (18 - 279 MBH)

### Features

- High Efficiency Rotary / Scroll Compressors
- Low Profile for High Ceiling Mounting
- R410A / R407C



## PRECISION ENVIRONMENTAL CONTROL

### DB-Aire Series

Cooling Capacity: 7 - 110 kW (2 - 32 TR)

### Features

- High Efficiency Scroll Compressors
- Optional VFD Compressors & EC Fan
- Touch Screen Control Panel
- Compact Design & Foot Print
- Chilled Water, Direct Expansion or Dual Coil
- Suitable for High Ambient Application
- R410A / R407C

# AIR COOLED PACKAGED



R410A

## VARIABLE REFRIGERANT FLOW (VRF) INVERTER SYSTEMS

### DBV Series

Cooling Capacity: 25 - 360 kW (8 - 128 HP)

#### Features

- High Efficiency Inverter Scroll Compressor
- 180° Sine Wave Inverter Technology
- Low Noise with High Efficiency Fan
- High Performances Heat Exchangers
- R410A



R407C  
R410A

## AIR COOLED SPLIT SYSTEMS

### ACCS Series

Cooling Capacity:  
16 - 410 kW  
(56 - 1400 MBH)

#### Features

- High Efficiency Scroll Compressors
- Versatile Applications
- Rigid Compact Casing
- R410A / R407C

### VEB / EB / HEB Series

Cooling Capacity:  
16 - 410 kW  
(56 - 1400 MBH)

#### Features

- Belt Driven Motor/ Drive Package
- Galvanized & Coated Steel Construction
- Optional Heaters (Hot Water & Electrical)



R407C  
R410A

## ROOFTOP UNITS

### ACPS Series

Cooling Capacity: 9 - 485 kW (27 - 1654 MBH)

#### Features

- High Efficiency Scroll Compressors
- Rigid Design for Outdoor Application
- Available for High Ambient Application
- Available for VFD Application
- R410A / R407C



R407C

## AIR-COOLED SELF-CONTAINED UNITS

### ACPS-C Series

#### Centrifugal Condenser Fan

Cooling Capacity: 18 - 111 kW (60 - 380 MBH)

#### Features

- High Efficiency Scroll Compressors
- Rigid and Versatile Design for Indoor Application
- High Static Centrifugal Condenser Fan
- R407C

# AIRSIDE PRODUCTS



## **ECS3 / ESCS3 / CS3 / SCS3 Series Central Station Air Handling Units**

Air Volume: 1700 - 95660 m<sup>3</sup>/h (1000 - 56250 CFM)

### **Features**

- Modular Industrial Design, Rugged Construction
- Extruded Aluminum Profile with Strong Nylon Corners
- Double Skin with PU Insulation
- Available for Multizone System Application
- AHRI / ETL Certified \*

\* 60Hz only



## **VCB / HCB Series Chilled Water Air Handling Units**

Air Volume: 1274 - 31780 m<sup>3</sup>/h (750 - 18700 CFM)

### **Features**

- Constructed of Heavy Gauge Steel Sheet
- Epoxy Powder Coated Paint Casing
- Low Noise Blowers
- Optional Hot Water Coils, Heater & Hydrophilic Fins



## **CC Series Horizontal Blower Units**

Air Volume: 1359 - 6796 m<sup>3</sup>/h (800 - 4000 CFM)

### **Features**

- High Static Application
- Epoxy Powder Coated Paint Casing
- Low Noise Blowers
- Belt Driven with Adjustable Pulley



## **CR Series Fan Coil Units**

Air Volume: 176 - 3740 m<sup>3</sup>/h (100 - 2200 CFM)

### **Features**

- Low to High Static Application
- Low Noise Blowers
- Plenum Box for Return Air
- Ducted, Ceiling Exposed, Floor Standing, Cassette & Wall Mounted

# SPECIALTY PRODUCTS



**ICE-CEL**  
INTEGRATED SOLUTIONS BY DB

## ICE-CEL Dunham-Bush Patented Ice Thermal Storage Systems

### Features

- Modular & High Efficiency Tanks from 422 - 844 kWh
- Only -3.5°C Brine Required in Freezing Mode
- Fiberglass Double Wall Tanks
- High Density Poly Ethylene (HDPE) Heat Exchanger for Durability & Efficiency



## CHILLER PLANT MANAGER (CPM) CHILLER 2 CLOUD (C2C)

- System Optimization & Automation
- Supervised All Equipments in Chiller Plantroom
- NetVisorPRO for Data & History Logging
- Graphical Animation
- Local or Remote Monitoring is Available via BACnet, ModBus, Internet



## CUSTOMIZED/ SPECIAL APPLICATION

- Customized Design Chiller
- Non Standard Requirement/ Specification
- Various Applications

At Dunham-Bush, contributing to a clean and ecologically sound globe is one of our long term business goals. We are striving to be the leader in green solutions by implementing world class "Green" air-conditioning and refrigeration systems to help build an energy efficient planet.



**Ice Thermal Storage  
Air Conditioning Systems**



**Heat Recovery  
Air Conditioning Systems**

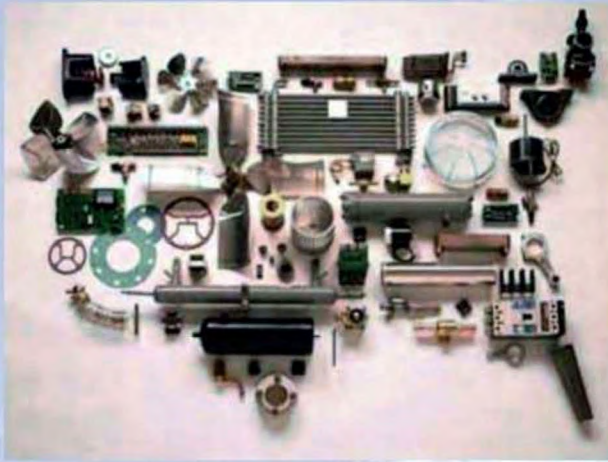


**Geothermal Heat Pump  
Air Conditioning Systems**

## PARTS

At Dunham-Bush we always provide our customers with genuine replacement parts and components for the service and maintenance of equipment. This ensures minimum down time and maximum durability and reliability of all products, providing our customers with greater peace of mind.

Should you require any parts, please contact the nearest Dunham-Bush Service Centre or log on to our Dunham-Bush website at [www.dunham-bush.com](http://www.dunham-bush.com).



## SERVICES

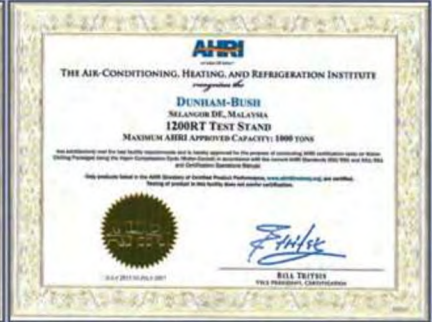
Our commitment to supply our customers with HVAC products to the highest possible standard continues throughout our after sales activities via network of Dunham-Bush Sales & Service offices as well as through our Dunham-Bush Authorized Service Partners.

We ensure that the maintenance of all our equipment and systems meet the highest engineering standards through:

- Preventive maintenance
- Annual inspections
- System optimization / Automation
- Remote monitoring / Servicing
- Field service & repair
- Retrofitting / Replacement



# AHRI TESTING FACILITIES



At Dunham-Bush, we work in partnership with the Air Conditioning, Heating and Refrigeration Institute (AHRI) to ensure that our certified products are stringently tested to meet customer's expectations of performance and efficiency.

Each of our certified products is tested at AHRI-Approved Test Rigs after manufacturing. We are confident of our proven abilities that we welcome all of our customers to witness the factory performance tests.

# CERTIFICATIONS



# OUR PROJECTS



London Eye, United Kingdom



Bird's Nest Stadium, China



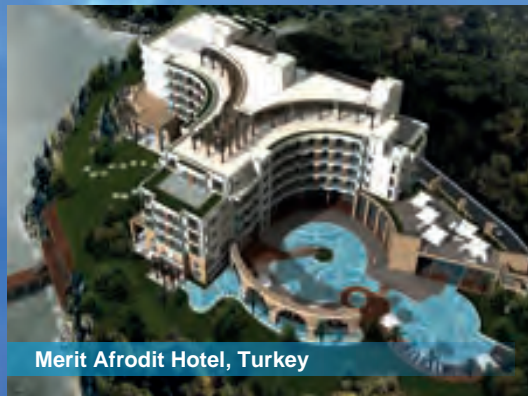
Jizan University Hotel, Saudi Arabia



Vinhomes Central Park, Vietnam



Assima Tower, Kuwait



Merit Afrodit Hotel, Turkey



Gaisano Hypermarket, Philippines



Bangalore International Airports, India



IR Marina Bay Sands, Singapore



**Kennedy Space Centre, United States**



**Shanghai Subway, China**



**Wisma Geylang Serai, Singapore**



**Hilton Salalah Resort, Oman**



**Kuala Lumpur International Airport, Malaysia**



**London Heathrow Airport, United Kingdom**



**AI Waab Mall, Qatar**



**Capalaba Shopping Centre, Australia**



**Magarpatta Cyber City, Pune, India**



**SOHO Central Park, Indonesia**



**IBN Batutta Dubai, United Arab Emirates**



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