Jet Blast Deflectors for Commercial, General Aviation & Military Aircraft

Reducing Airport Noise and Improving Safety Since 1957

BDI
Blast Deflectors

Reducing Airport Noise and Improving Safety Since 1957
For more than 60 years, BDI has offered the airport industry a full selection of jet blast deflectors ranging from light-duty for taxi operations to heavy-duty models for engine run-ups. BDI’s aim is to provide innovative, customized solutions for jet blast protection that meet customers’ budgets. BDI does this with passion and competence, and with the highest levels of technology, quality and safety.

**Planning & Design Specification Support**
- Jet blast impact assessments to ensure compliance with FAA, CAA and ICAO guidelines
- Photorealistic renderings for communicating concepts to stakeholders
- Support for airspace studies, obstacle free conflicts, aerodynamic usability, etc.

**Engineering**
- Continuous innovation using computational fluid dynamics (CFD) and finite element analysis (FEA)
- Computer-aided design (CAD) and 3D structural models for BIM integration
- Local code compliance of structural design, including anchoring systems and concrete foundations

**Supply**
- ISO 9001:2015 certification ensures that the highest quality standards are followed
- Global manufacturing capability offering the highest quality materials and production techniques
- Custom-manufactured solutions to meet unique project requirements

**Delivery & Installation**
- Jet blast deflector material can be delivered to any location via road, rail, ocean or air freight
- All material is professionally packed in easily-handled bundles, pallets and/or crates
- BDI’s staff of field technicians provide site assistance to ensure a smooth and efficient installation

**Performance Verification**
- BDI can provide field validation of the performance of any blast deflector model
- Field measurements of jet blast exhaust and air flow are compiled into a report
- BDI’s R&D department uses field data to develop new products and solutions

**Support**
- Inspections to check the integrity and evaluate the condition of installation. OEM re-certification available
- Refurbishment and repair programs to extend service life. Spare parts inventory maintained to mitigate lead times
- Archives of documentation and details from more than 1,500 past projects

**BDI IS COMMITTED TO MAKING PROJECTS SUCCESSFUL.**
BDI deflectors are constructed of heavy-duty, hot-dip galvanized steel. All designs are modular and can easily be relocated or reconfigured as requirements change. The most common type of jet blast deflector is BDI's curved design, which has been the industry standard since 1957, although BDI offers many other shapes and configurations to meet the requirements of our customers.
Argentina
Buenos Aires

Brazil
Goiania

Canada
Abbotsford
Calgary
Cold Lake
Edmonton
Josephburg
Montreal, Dorval
Montreal, Trudeau
Ottawa
Puvirnituq
St. John’s
Toronto, Billy Bishop
Toronto, Pearson
Vancouver
Waterloo
Winnipeg

Chile
Santiago

Colombia
Bogotá

Ecuador
Manta
Quito

Cayman Islands
Grand Cayman

Panama
Panama City

Trinidad & Tobago
Trinidad

USA
Akron
Albany
Albuquerque
Altus AFB
Anchorage
Andrews AFB
Atlanta
Atlantic City
Austin
Baltimore
Bangor
Barksdale AFB
Battle Creek
Beale AFB
Beaufort, MCAS
Birmingham
Boca Raton
Bradley
Buffalo-Niagara
Burbank
Carlsbad
Cecil Field, NAS
Charleston
Charlotte
Chennault/Lake Charles
Cherry Point, MCAS
Chesterfield
Chicago, Midway
Chicago, O’Hare
China Lake
Chino
Cleveland
Colorado Springs
Columbus
Dallas, DFW
Dallas, Love Field
Deer Valley
Denver
Des Moines
Detroit
Dobbins AFB
Dyess AFB
Edwards AFB
Eglin AFB
Eielson AFB
Ellendorf AFB
Fairbanks
Fairchild AFB
Fallon, NAS
Flint
Fort Bliss
Fort Dix
Fort Worth
Glendale
Grand Forks AFB
Grand Junction
Grand Rapids
Greensboro
Greenville
Grissom ARB
Harrisburg
Hawthorne
Hickam AFB
Hill AFB
Holloman AFB
Honolulu
Houston, Bush
Houston, Hobby
Huntsville
Independence
Indianapolis
Jacksonville, Cecil
Jacksonville, Int’l
Jacksonville, NAS
Kaneohe Bay, MCAS
Kansas City
Killeen
Knoxville
Kodiak
Kona
Kulis
Lafayette
Las Vegas
Laurel
Leigh Valley
Lemoore, NAS
Lexington
Lihue
Little Rock
Long Beach
Long Island
Los Angeles
Louisville
Madison
March ARB
Marietta
Martinsburg
McAllen
McConnell AFB
McGuire AFB
Melbourne
Memphis
Mercedita
Miami
Milwaukee
Minneapolis
Mobile Brookley
Moffett Field
Mojave
Monterey
Montgomery
Moody AFB
Morristown
Mountain Home AFB
Naples
Nashville
Nellis AFB
Nebraska Test Site
New Orleans
New York, JFK
New York, LaGuardia
Newark
Newcastle
Norfolk
Oakland
Oceana, NAS
Omaha
Onslow
Ontario
Oscoda
Palmdale
Paxtuxent River, NAS
Pensacola
Philadelphia
Phoenix
Pittsburgh
Point Mugu, NAS
Pontiac
Portland (Maine)
Portland (Oregon)
Providence
Portsmouth
Randolph AFB
Reno
Republic
Roanoke
Robins AFB
Rochester
Sacramento
Saginaw
Salt Lake City
San Antonio, Int’l
San Antonio, Kelly
San Diego
San Francisco
San Jose
Santa Monica
Sarasota
Savannah
Scott AFB
Scottsdale
Scranton
Seattle, Boeing Field
Seattle, Everett
Seattle, Renton
Seymour Johnson AFB
Shaw AFB
Sikorsky
South Bend
St. Augustine
St. Joseph
St. Louis
Stewart
Tallahassee
Tampa
Tinker AFB
Tonopah
Travis AFB
Truckee
Tucson
Tulsa
Tyndall AFB
Van Nuys
Victorville
Washington, Dulles
Washington, Reagan
West Palm Beach
Westchester
Westfield-Barnes
Whidbey Island, NAS
Wichita
Wilmington
Wright-Patterson AFB
Yuma, MCAS

GLOBAL PRESENCE IN OVER 55 COUNTRIES

www.bdi.aero
# Global Presence in Over 55 Countries

## Europe
- **Austria**
  - Vienna
- **Bulgaria**
  - Sofia
- **Czech Republic**
  - Prague
- **Estonia**
  - Ämari Air Base
- **France**
  - Bordeaux
  - Paris, CDG
  - Toulouse
- **Germany**
  - Augsburg
  - Berlin Schönefeld
  - Berlin Tegel
  - Dortmund
  - Finkenwerder
  - Frankfurt
  - Friedrichshafen
  - Hannover
  - Köln
  - Munich
  - Ramstein AB
  - Saarbuecken
- **Hungary**
  - Budapest
- **Iceland**
  - Reykjavik
- **Ireland**
  - Dublin
  - Shannon
- **Italy**
  - Aviano AB
  - Bologna
  - Cameri AB
  - Naples
- **Latvia**
  - Liepāja AB
  - Riga
- **Lithuania**
  - Zokniai AB
- **Luxembourg**
  - Luxembourg
- **Netherlands**
  - Schiphol
- **Norway**
  - Oslo

## Portugal
- Lisbon
- Porto

## Romania
- Camp Turzii AB
- MK Air Base

## Russia
- Moscow Sheremetyevo

## Spain
- Almeria
- Barajas
- Granada
- Ibiza
- La Coruna
- Lanzarote
- Madrid
- Moron AB
- Murcia
- Seville
- Tenerife
- Zaragoza

## Switzerland
- Basel
- Bern
- Stans
- Zurich

## United Kingdom
- Birmingham
- Brough
- Broughton
- Cambridge
- Exeter
- Lakenheath, RAF
- Liverpool
- London, Luton
- London, Stansted
- Manchester
- Mildenhall, RAF
- Norwich
- Warton

## Middle East / Africa

### Algeria
- Algiers

### Afghanistan
- Bagram
- Kandahar

### Bahrain
- Manama

### Djibouti
- Camp Lemonnier

### Egypt
- Beni Suef AB
- Cairo
- Fayid AB
- Helwan AB

### Ethiopia
- Addis Ababa

### Iraq
- Al Asad AB
- Balad AB

### Jordan
- Amman

### Kuwait
- Al Jaber AB
- Kuwait

### Morocco
- Ben Guerir AB

### Oman
- Adam AB
- Al Musannah AB
- Thumrait AB

### Qatar
- Al Udeid AB
- Doha

### Saudi Arabia
- Dhahran AB
- Dammam
- Jeddah
- King Faisal AB
- Medina
- Riyadh

### Turkey
- Incirlik AB
- Istanbul, Ataturk
- Istanbul, Grand Airport
- Istanbul, Sabiha Gökcen

### United Arab Emirates
- Abu Dhabi
- AI Ain
- Al Dhafra AB
- Dubai, DWC
- Dubai, DXB

### Asia / Oceania

### Australia
- Amberley, RAAF

### Darwin, RAAF
- Hobart
- Melbourne
- Newcastle-Williamtown
- Sydney
- Tindal, RAAF

### China
- Hong Kong

### India
- Hindon
- Mumbai
- Nagpur

### Diego Garcia
- Iwakuni AB
- Kadena AB
- Komaki
- Misawa AB

### Korea
- Kunsan AB
- Osan AB
- Sacheon
- Seoul
- Suwon AB

### Malaysia
- Kuala Lumpur
- Labuan
- Subang

### Pakistan
- Lahore
- Karachi

### Philippines
- Manila

### Singapore
- Changi
- Paya Lebar
- Seletar
- Suedong
- Tengah

### Sri Lanka
- Colombo

### Taiwan
- Taipei

### Thailand
- Bangkok

### Turkmenistan
- Ashgabat
These deflectors protect GSE, roadways, parking areas, buildings and personnel from jet blast produced by aircraft maneuvering on taxiways and aprons.

**BDI offers many different models to protect sensitive areas from jet blast.** The height of the deflector is determined by our engineers based on the aircraft position, aircraft type, power level and any additional specific customer requirements. Most of BDI’s models are constructed of heavy-duty, hot-dip galvanized steel. All designs are modular and can easily be relocated or reconfigured when requirements change.

The industry standard is BDI’s curved deflector with solid panels, which offers maximum aerodynamic performance. Other versions offered by BDI include vertical and angled deflectors with expanded metal (mesh).

### ADVANTAGES

- Proven designs
- Customized to meet project requirements
- Heights from 6’ to 35’ (2m to 11m)
- Compact footprint
- Designed for dynamic jet blast loads
- Variety of coating options
- Many optional features
- Corrosion resistance for long service life
LIGHT-DUTY JBD FOR TAXI OPERATIONS

IMPROVING AIRPORT SAFETY & CREATING USABLE SPACE

Santiago, Chile
Dublin, Ireland
Mumbai, India
Killeen, USA
Bologna, Italy
Las Vegas, USA

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A run-up deflector is utilized by airlines, MRO operations and aircraft manufacturers when high-power engine run-ups need to be performed safely. Both heavy-duty and aerodynamically efficient, BDI’s range of run-up deflectors meet the demands of all aircraft types.

BDI’s design team carefully studies each project to determine the optimal deflector type and configuration. When run-up noise is a factor, BDI can offer ground run-up enclosure (GRE) technology, which combines an aerodynamically-shaped jet blast deflector with noise-absorptive acoustic walls.

**ADVANTAGES**

- Designs available for all aircraft & engine types
- Optimal aerodynamic performance
- Configurations adapted to project requirements
- Heavy-duty anchor system
- Rapid installation
- Lasting durability
- No site welding or field fabrication required
- Outstanding corrosion protection
HEAVY-DUTY JBD FOR ENGINE RUN-UPs

CREATING A SAFE ENVIRONMENT FOR MAINTENANCE OPERATIONS
SAFETY DURING AIRSIDE CONSTRUCTION

BDI’s range of temporary and moveable deflectors provides contractors and airports with flexibility and improved safety in airside construction environments. Various heights and shapes are available to suit any project requirement. A moveable deflector avoids the need for permanent civil work.

MOVEABLE TYPES OF BDI JET BLAST DEFLECTORS FOR TEMPORARY APPLICATIONS:

- Curved or vertical style with solid panels
- Angled or vertical style with expanded metal
- Optional factory finish in high visibility colors
- All types can be mounted onto concrete bases and are moveable by forklift or crane
Since the dawn of the jet age, BDI has provided solutions for military applications. BDI’s first major military project was to equip all Strategic Air Command (SAC) bases with Lynnco Type E deflectors and, since then, thousands of BDI deflectors have been installed at military facilities worldwide.

Models are available for power check pads, aprons and parking positions.

BDI’s deflector material can be rapidly dispatched via air or sea shipment to locations around the globe in easily-handled bundles. Designs comply with USAF, NAVFAC, USACE, and NATO requirements.
BDI’s range of fiberglass blast deflectors is designed for use near airport NAVAIDs such as an instrument landing system (ILS) localizer. These deflectors are constructed entirely of fiber reinforced plastic material in order to be transparent, or invisible, to radio signals. BDI’s fiberglass design has been flight tested by the FAA, which verified that the material and geometry do not interfere with NAVAIDs.

The curved shape of BDI’s fiberglass deflector provides optimal aerodynamic performance and provides maximum protection to both personnel and NAVAID structures. The fiberglass panels can also be supplied in a variety of standard colors.
**A FOCUS ON QUALITY**

BDI has a long history of consistently providing quality blast deflectors that meet project requirements. This commitment has been reinforced by receiving registration to ISO 9001:2015 standards.

All BDI deflectors are manufactured to the highest standards, and each installation is supervised by a highly trained BDI field technician. BDI deflectors are designed and prefabricated for efficient installation with minimal tools and labor.
Founded in 1957 in San Francisco, Blast Deflectors, Inc. is a world leader in jet blast deflectors and aircraft acoustic enclosure technology. BDI’s innovative solutions have set the standard for the jet blast deflector industry for more than 60 years. BDI safeguards their reputation for excellence through a focus on research and development combined with state-of-the-art manufacturing. The result is a complete range of jet blast deflectors suitable for all applications.

BDI works with aircraft manufacturers, civil aviation authorities and airport consultants to analyze the potential jet blast impacts of aircraft. That, coupled with their years of experience and thousands of successful installations across the world, allows BDI to plan, design and implement the most cost effective and practical solutions. BDI’s commitment for customer service and continuous improvement is evidenced by their ISO 9001:2015 certification.
This is only a partial listing of BDI’s standard models. Your BDI representative can provide you with more information on BDI’s complete range of jet blast deflectors, including:

- Technical specifications
- Concept drawings
- Typical concrete foundation designs
- Installation requirements and durations
- Project schedules
- Complimentary jet blast hazard assessment
- Complimentary run-up noise assessment
- Budgetary pricing
- Project references
- Testing requirements

### STANDARD MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Height</th>
<th>Depth</th>
<th>Description</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-6</td>
<td>8’ to 14’ (2.4m to 4.2m)</td>
<td>17” (43cm)</td>
<td>Cantilevered, vertical blast fence with posts spaced at 6’ on center. May be installed on narrow foundations (e.g. piers, stem walls, etc.)</td>
<td>Height-dependent</td>
</tr>
<tr>
<td>LCV</td>
<td>14’ to 32’ (4.2m to 9.6m)</td>
<td>4’ to 8’ (1.2m to 2.4m)</td>
<td>A-Frame with vertical blast surface for installation on shallow foundations</td>
<td>Height-dependent</td>
</tr>
<tr>
<td>G8M-6</td>
<td>8’ (2.4m)</td>
<td>7’4” (2.3m)</td>
<td>Curved deflector designed for engines 5 to 6 feet (1.5-1.8m) above ground level</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G10M-6</td>
<td>10’ (3.1m)</td>
<td>8’4” (2.6m)</td>
<td>Curved deflector designed for engines 7 to 8 feet (2.1-2.4m) above ground level</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G14M-6</td>
<td>14’ (4.2m)</td>
<td>9’4” (2.9m)</td>
<td>Curved deflector designed for engines 10 to 11 feet (3.0m-3.3m) above ground level</td>
<td>Most wide-body aircraft</td>
</tr>
<tr>
<td>G19M-6</td>
<td>19’ (5.8m)</td>
<td>11’2” (3.4m)</td>
<td>Curved deflector designed for engines greater than 11 feet (3.3m) above ground level</td>
<td>All aircraft including A380</td>
</tr>
<tr>
<td>G8NB</td>
<td>8’ (2.4m)</td>
<td>4’6” (1.4m)</td>
<td>Curved deflector with narrow base, designed for light-duty jet blast protection</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G10NB</td>
<td>10’ (3.1m)</td>
<td>5’2” (1.6m)</td>
<td>Curved deflector with narrow base, designed for light-duty jet blast protection</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G12NB</td>
<td>12’ (3.8m)</td>
<td>5’8” (1.8m)</td>
<td>Curved deflector with narrow base, designed for light-duty jet blast protection</td>
<td>Narrow-body aircraft</td>
</tr>
<tr>
<td>G14NB</td>
<td>14’ (4.2m)</td>
<td>5’8” (1.8m)</td>
<td>Curved deflector with narrow base, designed for light-duty jet blast protection</td>
<td>Most wide-body aircraft</td>
</tr>
<tr>
<td>G20NB</td>
<td>20’ (6.1m)</td>
<td>8’2” (2.5m)</td>
<td>Curved deflector designed for engines greater than 11 feet (3.3m) above ground level</td>
<td>All aircraft including A380</td>
</tr>
<tr>
<td>JBS-A</td>
<td>6’ to 14’ (1.8m to 4.2m)</td>
<td>Varies</td>
<td>Angled mesh barrier. Designs available for all aircraft types.</td>
<td>Most commercial aircraft.</td>
</tr>
<tr>
<td>JBS-V</td>
<td>6’ to 14’ (1.8m to 4.2m)</td>
<td>12’ (31cm)</td>
<td>Vertical mesh barrier. Designs available for all aircraft types.</td>
<td>Most commercial aircraft.</td>
</tr>
<tr>
<td>JBS-P</td>
<td>6’ to 14’ (1.8m to 4.2m)</td>
<td>Varies</td>
<td>Portable mesh barrier. Designs available for all aircraft types.</td>
<td>Most commercial aircraft.</td>
</tr>
</tbody>
</table>

### BLAST DEFLECTORS RATED FOR TAXI/BREAKAWAY POWER OPERATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Height</th>
<th>Depth</th>
<th>Description</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS12</td>
<td>12’ (3.6m)</td>
<td>11’6” (3.6m)</td>
<td>Maintenance testing, full power run-ups with afterburner</td>
<td>Military fighters</td>
</tr>
<tr>
<td>GS20</td>
<td>20’ (6.1m)</td>
<td>13’ (4.0m)</td>
<td>Maintenance testing, full power run-ups with afterburner</td>
<td>Military fighters &amp; bombers</td>
</tr>
</tbody>
</table>

### BLAST DEFLECTORS RATED FOR HIGH POWER OPERATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Height</th>
<th>Depth</th>
<th>Description</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>G8M</td>
<td>8’ (2.4m)</td>
<td>7’4” (2.3m)</td>
<td>Curved deflector designed for takeoff thrust, typically at the end of a runway</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G10M</td>
<td>10’ (3.1m)</td>
<td>8’4” (2.6m)</td>
<td>Curved deflector designed for takeoff thrust, typically at the end of a runway</td>
<td>G.A. + some narrow body</td>
</tr>
<tr>
<td>G14M-3</td>
<td>14’ (4.2m)</td>
<td>9’4” (2.9m)</td>
<td>Curved deflector designed for takeoff thrust, typically at the end of a runway or some maintenance facilities</td>
<td>Narrow + some wide body aircraft</td>
</tr>
<tr>
<td>G19M-3</td>
<td>19’ (5.8m)</td>
<td>11’2” (3.4m)</td>
<td>Curved deflector designed for engines greater than 11 feet (3.3m) above ground level</td>
<td>All aircraft including A380</td>
</tr>
<tr>
<td>U19</td>
<td>19’ (5.8m)</td>
<td>14’4” (4.4m)</td>
<td>Curved deflector designed for takeoff thrust, typically in a maintenance facility</td>
<td>Wide-body aircraft</td>
</tr>
<tr>
<td>U24</td>
<td>24’ (7.2m)</td>
<td>15’4” (4.7m)</td>
<td>Curved deflector designed for engines greater than 11 feet (3.3m) above ground level</td>
<td>Wide-body aircraft</td>
</tr>
<tr>
<td>U35</td>
<td>35’ (10.4m)</td>
<td>25’10” (7.9m)</td>
<td>Curved deflector designed for takeoff thrust, typically in a maintenance facility</td>
<td>DC-10, KC-10 &amp; MD-11</td>
</tr>
</tbody>
</table>

### BLAST DEFLECTORS RATED FOR AFTERBURNER OPERATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Height</th>
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<th>Description</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS12</td>
<td>12’ (3.6m)</td>
<td>11’6” (3.6m)</td>
<td>Maintenance testing, full power run-ups with afterburner</td>
<td>Military fighters</td>
</tr>
<tr>
<td>GS20</td>
<td>20’ (6.1m)</td>
<td>13’ (4.0m)</td>
<td>Maintenance testing, full power run-ups with afterburner</td>
<td>Military fighters &amp; bombers</td>
</tr>
</tbody>
</table>
LET BDI'S 60+ YEARS OF EXPERIENCE BENEFIT YOUR PROJECT

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us.sales@bdi.aero

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ASIA-PACIFIC
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- Jet Blast Deflectors
- Ground Run-up Enclosures
- Visual Screens
- FOD Barriers
- Acoustic Barriers

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