

# Choosing the right partner

## For your hazardous location lighting project

When you're looking for hazardous location lighting, you need an experienced partner you can trust. Someone who will accompany you every step of the way and provide expert advice and exceptional service. The ABB sales team has been doing just that for close to a century.

— Since 2001, the ABB Hazlux® manufacturing facility has been ISO 9001, 1400 and OHSAS 18001 compliant.

### Engineering expertise at your fingertips

Our product engineers are readily available to answer all your technical questions, and partner with you in selecting the best lighting solution to reach your goals.

### High standards of quality control

Quality is built into every product at every step of the process, from design to final assembly. Each product is inspected and tested to ensure that it meets our strict quality standards, and then professionally packed so that your order will arrive intact at your installation site.

### Product customization

We design and manufacture units, giving us unparalleled capabilities to customize lighting fixtures to meet your specific needs.

### Reduced lead time

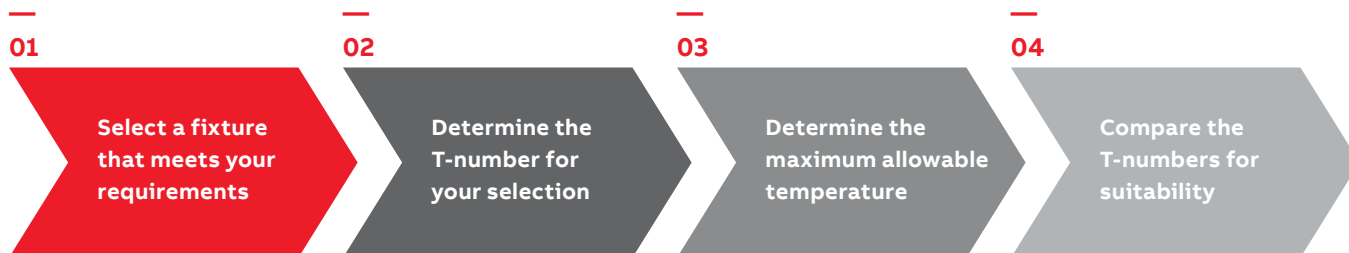
We produce what you need when you need it in our state-of-the-art North American Center of Excellence. We can easily accommodate both large and small production runs with a fast turnaround.

— A sustainable development policy is in effect at the ABB production facility to reduce our carbon footprint and minimize the environmental impact of our operations. Through a series of initiatives, reductions in water usage, electricity and natural gas, packaging and pallets are being realized.



# Environment selection method

## The right fixture in the right application



### 01

**Select a fixture that meets your Class, Division and Group requirements.**

For example : Class I, Division 2, Group D

### 02

**Determine the T-number for your selected fixture.**

Be sure it is for the specific wattage, ballast housing, optical assembly and ambient temperature.

Use the published information in this catalog or contact your Hazlux sales representative.

### 03

**Determine the maximum allowable temperature for the hazardous materials.**

Class I Gas	Ignition temperature for the specific gas (from NFPA497M)
Class II Dust	Group E: 392°F (200°C)
	Group F: 392°F (200°C)
	Group G: 329°F (165°C)
	Or ignition temperature of dust if lower
	Above from NEC table 500-3(F)

### 04

**Compare T-number (from step 2) to maximum allowable temperature (from step 3).**

- If T-number is cooler than the maximum allowable temperature, the selected fixture is suitable.
- If T-number is hotter than the maximum allowable temperature, the selected fixture is not suitable.

T-number table

Class I, II, Div. 1, 2 T-number	Max. temperature
T1	842°F (450°C)
T2	572°F (300°C)
T2A	536°F (280°C)
T2B	500°F (260°C)
T2C	446°F (230°C)
T2D	419°F (215°C)
T3	392°F (200°C)
T3A	356°F (180°C)
T3B	329°F (165°C)
T3C	320°F (160°C)
T4	275°F (135°C)
T4A	248°F (120°C)
T5	212°F (100°C)
T6	185°F (85°C)

# Hazardous locations applications

## We have a fixture for virtually any condition

Hazlux lighting fixtures are built to withstand most hazardous application.

### Examples of hazardous locations

Chemical manufacturing and processing plants
Oil refineries
Oil drilling rigs
Offshore platforms
Pipeline pumping stations
Pulp and paper plants
Aluminum and copper smelting
Steel mills and foundries
Mining operations
Grain handling facilities
Flour, sugar and starch processing
Food processing plants
Paint and rubber manufacturing facilities
Power generation plants
Waste treatment facilities
Paint, chemical and plastic mixing/storage areas
Bulk truck terminals
Solvent/cleaning areas



### 01

#### Hose-down and wet locations

- Certified for wet locations – NEMA 4X, IP65, IP66, IP67/68 (indoor and outdoor); CSA and cULus Listed
- Superior gasketing system – both tank and globe gasketing systems withstand hose-down pressures
- Uninterrupted globe thread – assures positive seal
- Baked-on, dry epoxy coating – not paint but 100% dry solids
- Globes, refractors and finish designed to withstand thermal shock during hose down

### 02

#### High-ambient temperature areas

- All standard fixtures are tested and listed for at least 104°F (40°C) ambient – even under heavy dust blanket and no air flow
- Exclusive heat sink design results in a cool operating fixture, extended ballast/lamp life and lower maintenance costs
- Selection of high-ambient temperature rated fixtures – contact your ABB representative for fixtures certified for 131°F (55°C) and 149°F (65°C) applications
- Steam spray and thermal shock resistant

### 03

#### Corrosion and abrasion

- Baked-on, dry epoxy coating – not paint but 100% dry solids
- Stainless steel external hardware
- Sand-blast resistant finish
- Superior silicone gasketing system on both tank and globe (other gasketing systems available for special corrosive applications such as phosphates)
- Aluminum components contain less than 0.4% copper for maximum corrosion resistance
- Special HazCote® corrosion fighter finish available for extremely corrosive areas; consult your ABB representative for details

## Hazlux® fixture applications



### 04

#### Ice and arctic conditions

- Gasketing system and finish allow for expansion and contraction through wide temperature variations
- High-strength mechanical mountings withstand ice loading
- Tempered glassware available for extra thermal shock safety margin



### 05

#### Vibration and vandalism

- Vibration tested by UL and CSA
- Vibration-resistant hardware throughout fixture
- Screw retainers on guard ensure retention even if screws are not completely tightened
- Vibration-resistant globe thread and sealing system
- Optional refractors, high-strength tempered glass and Teflon®-coated globes for protection from vandalism



### 06

#### Dust blanket

- Tested and listed by UL and CSA
- Cone pendant mount available (45° sloped sides) for areas where dust or other residue buildup is a problem
- Exclusive heat sink design – results in a cool operating fixture, extended ballast/lamp life and lower maintenance costs



### 07

#### Wind

- Wind-tunnel tested at McDonnell Douglas Corporation at air flow speeds in excess of 320 km/h (198 mph)
- Guard specially designed to secure reflector during high wind loading
- High-strength mechanical mountings withstand strong wind loads

Teflon is a registered trademark of The Chemours Company FC, LLC.