Diamond Power® Wall-Eye® HD Portable Camera
Portable Advanced Technology Camera System

The Diamond Power® Wall-Eye® high-definition camera system from Babcock & Wilcox (B&W) features the latest solid-state technology with special optics to produce superior viewing. Numerous industries will benefit from this latest technology providing improved images, portability, IP camera, camera control software, interchangeable straight and angled viewing optics, and a portable DVR. Extensive lab and field tests and commercial applications confirm the quality and stability of the camera.

The portable Wall-Eye HD camera can be used to view various combustion processes in coal-fired and gas-fired boilers. The system can also be used to view processes in steel mills, and cement and lime kilns. The portable Wall-Eye HD camera can be used on negative pressure or balanced draft furnaces.

**Benefits**

- **Online inspection**
  Monitor and inspect the most severe areas of the boiler or furnace to control process temperature and optimize performance

- **Flexibility**
  Interchangeable optics for straight- and right-angle viewing

- **Better Visibility**
  Optical probe cooled by filtered plant air and remote focus adjustment on camera's rear plate provide sharper, more accurate views

- **Portable**
  - Battery-powered via rechargeable belt pack
  - Shoulder strap for easier portability
  - Includes DVR with 5 in. LCD monitor, internal hard drive and rugged storage and shipping case

**Features**

- A 1/3" format IP camera and optical probe with a 60° diagonal field of view objective lens (48°H x 35°V)
- Straight viewing protective lens cap with sapphire window
- Right angle mirror lens adapter
- Straight and right angle outer stainless steel shrouds
- Optical probe cooled by filtered plant air, which reduces the accumulation of foreign particles on its surface
- Shoulder strap
- Heat shield
- Battery-operated DVR
- Lithium ion battery pack with charger for camera power
- Air regulator with 10-foot (3 m) hose
- 15-foot (4.5 m) coaxial cable for video output to DVR
- 12-foot (3.6 m) camera power cable
- Rugged shipping and storage case with wheels

B&W’s Diamond Power Wall-EYE HD portable camera system is completely solid state.
### Specifications

| **Maximum Operating Internal Furnace Temperature** | 3000F (1648C) |
| **Camera Assembly Ambient Temperature Limits** | Camera housing: 14 to 122F (-10 to 50C) no cooling |
| **Ambient Temperature Limits** | Optical probe:  
Objective lens O-ring: less than 650F (343.3C)  
Optical components: less than 1100F (593.3C) |
| **Air Requirements** | Optical probe assembly:  
Straight viewing: 20 psi (137.8 kPa)  
Angled lens: 40 psi (275 kPa)  
Based on instrument or filtered plant air at 90 to 100F (32.2 to 37.7C) ambient |
| **Air Connections** | Optical probe air input: 1/2 in. NPT with 3/8 in. SAE flare fitting using a 10-foot (3 m) hose supplied with air filter/regulator |
| **Optical Probe** | Lengths available: 24 in. (609.6 mm) standard, 36 in. (914.4 mm), or 48 in. (1219.2 mm) |
| **Housing Construction** | Housing: 4.75 in. dia. (120.65 mm) tubing with 0.5 in. (12.7 mm) wall, 6061-T6511  
Front and rear plates: 0.1875 in. (4.76 mm) 6061-T6 aluminum  
Base: 0.1875 in. (4.76 mm) 6063 T52 aluminum channel |
| **Housing Finish** | Semi-gloss textured pearl white |
| **Housing Dimensions** | 4.75 in. dia. x 5.54 in. H x 12.06 in. L (120.6 mm dia. x 140.7 mm H x 306.3 mm L) |