

“Duct Cleaning Accessibility Guide”

Access Panels — Code Requirements (What “per code” really means)

Access panels in kitchen exhaust duct systems are primarily defined by:

- NFPA 96
 - IMC
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1. PURPOSE OF ACCESS PANELS

Access panels must allow:

- Inspection of grease accumulation
 - Complete cleaning of the entire duct system
 - Fire safety verification.

 - **If a duct section cannot be accessed → it is considered non-compliant**
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2. LOCATION REQUIREMENTS (NFPA 96)

Access panels must be installed at (**Mandatory Locations**):

- At **every change of direction** (elbows, offsets)
 - At **horizontal duct sections**
 - At **vertical risers** (top and bottom)
 - Near **exhaust fan connection**
 - At **long duct runs**
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3. DISTANCE BETWEEN PANELS

- Maximum spacing: **12 ft (≈ 3.6 m)** for horizontal ducts
- Additional panels required if cleaning tools cannot reach all areas.

Rule: Technician must be able to physically reach and clean entire duct interior

For high-end projects:

- Install panels every **2–3 meters** (not only 3.6 m)
 - Provide **external service platforms** near fans.
 - Ensure **full visibility of duct cleaning path**.
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4. SIZE REQUIREMENTS

- Must be large enough for:
 - Cleaning tools
 - In some cases, **hand access**.

Typical minimum:

- **300 × 300 mm (12" × 12")** (*frequent practice*)
 - Larger ducts require larger access panels.
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5. CONSTRUCTION REQUIREMENTS

Access panels must be:

- Made of **same material as duct** (typically mild steel or stainless steel)
 - **Liquid-tight / grease-tight**
 - **Fire-resistant** (same rating as duct)
 - Equipped with:
 - Gasket (high temperature)
 - Tight sealing fasteners
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6. INSTALLATION RULES

- Must be **easily accessible** (not hidden behind walls or ceilings without access)
 - Cannot be blocked by:
 - Equipment
 - Structures
 - Must remain accessible after installation.
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7. VERTICAL DUCT CLEANING USING MECHANICAL EQUIPMENT

- For vertical ducts intended for mechanical cleaning, the minimum internal duct dimension shall be 400 × 400 mm (16" × 16").
- A duct access door shall be provided at the uppermost accessible section of the vertical duct to permit insertion and operation of cleaning equipment.
- A permanent internal hanging point (solid metal rod or approved anchoring device) shall be installed at the top of the duct to facilitate suspension of cleaning equipment.
- A duct access door shall be installed at the base of the vertical duct or directly before the first horizontal elbow to facilitate inspection and cleaning.
A grease drain channel shall be installed at the lowest point of the duct, complete with a 2" valve and hose connection for drainage and maintenance operations.
- Prior to discharging cleaning effluent into the sewerage system, applicable local regulations shall be reviewed and complied with. In certain jurisdictions, direct connection to the sewer is prohibited, and discharge must be routed through an approved grease separator or collection tank.
- Dedicated water and electrical connection points for mechanical duct cleaning equipment shall be installed adjacent to the access door at the uppermost section of the duct run.
- The water connection shall be a minimum of 1/2" diameter, and a three-phase electrical outlet shall be provided in accordance with applicable electrical standards.
- All cleaning operations shall be documented, including the date and time of service, names of personnel performing the work, and the next scheduled cleaning date.
- Records shall be maintained by the customer for inspection purposes.
- A durable label containing this information shall be permanently affixed to each duct access door.

8. VERTICAL DUCT USING MANUAL CLEANING

- For manual cleaning of vertical ducts, access doors shall be installed at each floor level.
The recommended installation height for the lower edge of the access door is 800 mm (32") above finished floor level.
- A duct access door shall be installed at the base of the vertical duct or directly before the first horizontal elbow to facilitate inspection and cleaning.
A grease drain channel shall be installed at the lowest point of the duct, complete with a 2" valve and hose connection for drainage and maintenance operations.

9. LABELING REQUIREMENT (IMPORTANT & OFTEN MISSED)

Each panel must be labelled by durable label containing this:

“ACCESS PANEL — DO NOT OBSTRUCT”

Our proposal: All removable ceiling panels providing access to ductwork shall be clearly labeled “**Duct Access Panel Above Ceiling**” to ensure proper identification for inspection and cleaning.

10. PLEASE DON'T MISS (CRITICAL)

- No access at long horizontal ducts → ❌ inspection failure
- Access installed but **not reachable** → ❌ non-compliant.
- Panels too small → ❌ cannot clean properly.
- No access near fan → ❌ grease accumulation risk

ABAD Series Duct Access Door by ARAMA and BENET

The ABAD Series duct access doors by Arama and Benet are engineered to meet UL standard requirements, ensuring safety, durability, and compliance.

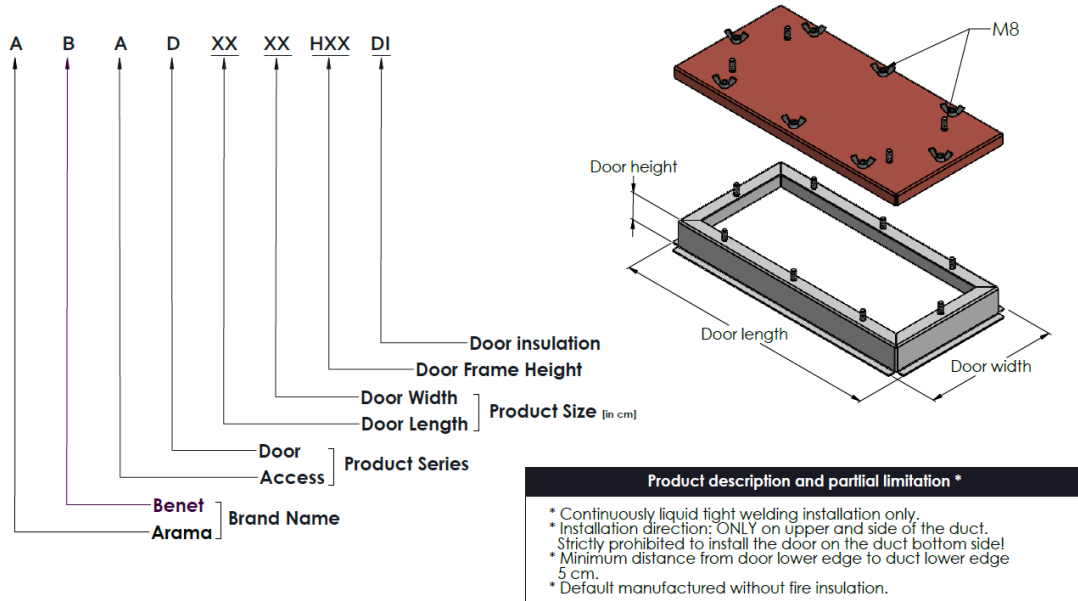


Figure 1: Duct access door manufactured by Arama and Benet (for more data see **ABAD Access door series** product key page).