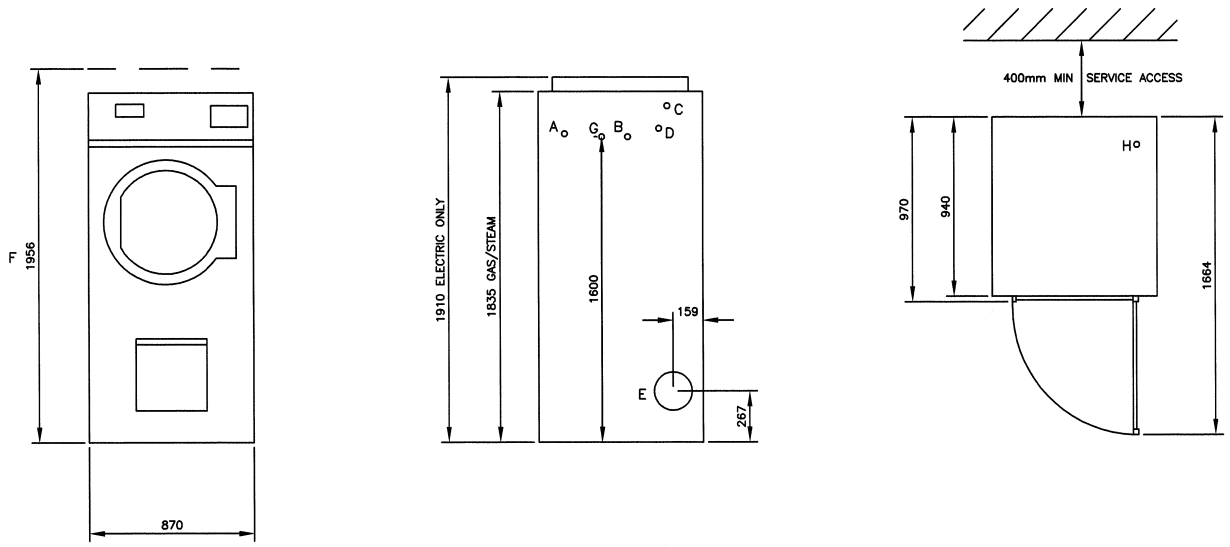
ADC D40 DRYER

S.A.F.E SYSTEM

Installation Specification - Dimensions shown in millimetres | I/D40/09/04



A - Electrical connection, B - Gas Inlet, C - Steam Inlet, D - Steam return, E - Exhaust outlet, F - Steam dryer operating height, G - Water Inlet (S.A.F.E. Sensor Activated Fire Extinguishing system), H - Compressed air connection (Steam only)

Model		**D40**
Dimensions (HxWxD)	Gas/Steam	1835 x 870 x 970mm
	Electric	1910 x 870 x 970mm
Boxed		1960 x 910 x 1120mm
Nett weight	Gas/Electric	242kg (532lb)
	Steam	269kg (591lb)
Water Connection		
No of inlet valves		1 cold
Minimum pressure		1.4 bar (20 psi) (max 60psi)
Inlet size		3/4" BSP via 15mm supply
Flow rate		20 litres/min
Electrical		
Standard Gas or Steam		240v/50Hz/1ph/13A
Reversing motor model		415v/50Hz/3ph+N/10A/ph (optional)
Electric		415v/50Hz/3ph+N/40A/ph - 22kw
Motor rating		373 watt
Gas		
Heat input		29.3kw (100,000Btu)
Supply Pressure	Natural gas	15mb(6"wc) min - 30mb (12"wc) max - above 30mb a regulator must be fitted.
Burner Pressure	Natural gas	8.7mb(3.5"wc)
Supply Pressure	LPG	Propane 37mb(14.8"wc) Butane 28mb(11.2"wc)
Inlet size		1/2" BSP male via a 1/2" flexible armoured hose
Exhaust & Ventilation - Recommended Guides		
Exhaust outlet size		200mm (8")ø Horizontal, 250mm (10")ø Vertical
Total max. length	Horizontal	9.7m (32ft) This allows for the use of 1 No 90° bend
	Vertical	27.4m (90ft) This allows for the use of 1 No 90° and 1 No 180°
Max permissible exhaust back pressure		0.74mb (0.3"wc)
Airflow	Gas/Electric/Steam	17.83m^3 (630ft^3)/min
Free air intake requirement		0.065m^2 (100in^2)
Steam		
Consumption		47.2kg/hr (104lb/hr) @ 125 psi
Operating Pressure		7kg/cm^3 (100psi) - 8.8kg/cm^3 (125psi)
Connection - supply/return		1" BSP/ 1" BSP
Compressed air (Steam model ONLY)		
Consumption		0.014m^3/hr (0.5ft^3/hr)
Pressure		80psi
Connection		1/8" BSP
Minimum installation distance - Rear		400mm

Foundations

The machine should be sited on a firm level floor capable of withstanding its loaded weight.

Electrical supply

Single phase - Each dryer must be provided with a separate isolation point, usually a fused switched spur outlet. Electrical connections are made inside the rear service box located at the upper left of the machine. Notice must be taken of the connection diagram. Ensure that the machine is also earthed correctly using the copper lug provided. Three phase - A separate circuit serving each dryer must be provided. On electric heat models the connection is made on the oven contactor at the rear. The isolator must be in an accessible position for emergency shut off. A competent installer must carry out all work. All work and materials must comply with local and national codes of practice.The machine must be installed using correctly sized cable (not provided) and an appropriate protection device, i.e. fuse or circuit breaker. A permanent 24hr power supply is essential.

Gas supply

Ensure that the correct pressure is supplied to the unit depending upon the type of gas used, if the inline pressure exceeds the max permissible pressure a regulator must be fitted. The machine is designed to burn at a certain rate, known as the Btu or kw rating of the appliance. To ensure that this rate is maintained the gas supply should remain constant. therefore the supply line must be correctly sized. Distance from the meter and other appliances on the same supply will have an effect on the pressure. Each unit should have a gas isolation tap, test nipple point and restraining wire/chain. The machine should be connected to a supply using a flexible armoured hose with union connector, (bayonet fittings must not be used) as vibrations could cause a solid connection to fracture. All gas work must be carried out by a registered CORGI gas installer and must comply with all relevant local and national codes of practice.

Exhaust

All exhaust ductwork must be designed by a competent operative to ensure that the installation does not have any detrimental effect on the performance of the dryer. The duct should follow the shortest possible route to atmosphere using the least number of bends possible and should be constructed of a smooth wall, rigid stainless steel or galvanized tubing. The diameter of the ducting should never be reduced in size and where possible 45º bends should be used in place of 90º bends. Rigid ducting should be used right upto the machine spigot wherever possible. If this is not possible flexible ducting can be used as a final connection only and should be limited to a maximum 0.5 metres in length and must not change direction. Plastic or foil flexible ducting must not be used, only use metal flexible such as rega-duct, steelflex or glassflex duct. If a common duct is to be used to vent multiple dryer installations the diameter must be increased to accommodate the cumulative effect of all the dryers.
Exhaust terminations for horizontal duct terminations should be via a downturn 90º elbow, vertical ducts to be terminated via inverted china hats or a 135º return. Conventional china hats (hoods) must not be used as this as a massive effect on back pressure. Suitable louvres or grills may be used to prevent entry by foreign objects but consideration must be given to potential restrictions to air flow and must also allow easy cleaning of the grill or louvre.
Duct termination must be 2 metres away from any opening or fresh air inlet into the building. Where this is not possible a minimum of 300mm will be accepted, provided that the configuration of the exhaust termination in respect of the make-up air inlet grille shall not allow re-circulation of the exhausted damp, warm air back into the make-up air vent.
The exhaust should be properly sealed at all the joints by duct tape(not rivets or screws). Larger diameter or rectangular ducting may require some additional fixing by screws or rivets but these must be kept to a minimum in number and length. In all cases adequate access must be made for cleaning purposes. Site conditions may vary and these should be taken into account when planning the exhaust system. It is recommended that the supplier is consulted for long, multiple and difficult ducting runs. **NOTE! NEVER USE 90º ENTRY POINTS ON MULTIPLE DUCTING. ONLY USE 45º ENTRY SPIGOTS (NOT BOOTS).**

Ventilation

While in operation the dryer removes a large amount of air, from the room via the exhaust. Therefore the air inside the room must be continually replenished with fresh air from atmosphere. Ventilation must be fixed and unrestricted and sized to provide the correct amount of fresh air in take. Louvres and grills may be used but consideration should be given to any restriction imposed by them. Ventilation must be a minimum of 300mm and should ideally be 2 meters away from any exhaust duct termination. If more than one dryer is installed the opening should be increased to match their requirements; there is no need to make a separate opening. Where ventilation from outside is provided through a cavity, the cavity must be lined and sealed in a plenium box or suitable alternative. Site conditions may vary and these should be taken into account when planning the ventilation

Steam

All steam pipework in the installation must be sized by a competent operative taking into account the distance from the source and the amount of steam that is required. The steam supplied must be dry. Final connection to the steam coil shall be made with a flexible hose. Suitable isolation taps and a strainer must be fitted to facilitate ease of service. A condensate return line must be fitted incorporating a trap mounted 300mm below the steam coil outlet, non return valve and isolation tap. All steam supply pipes should be lagged and installed to local and national codes of practice as they form part of a pressurised system. **NOTE! FOR STEAM DRYERS A CLEAN, DRY, REGULATED COMPRESSED AIR SUPPLY AT 80PSI IS REQUIRED.**

Water Supply

This machine is fitted with a S.A.F.E. system (Sensor Activated Fire Extinguishing system), which is designed to prevent serious laundry fires within the dryer. A permanent 24hr water supply is essential and should be supplied via an isolation valve or tap terminating in a 3/4" BSP male threaded end. Final connection via 3/4" flexible hose supplied with the dryer.

NOTES

1. **WHERE THE WATER FOR THE SAFE SYSTEM IS TO BE BROUGHT FROM A COLD WATER SERVICE, WHICH ALSO SUPPLIES THE WASHER(S), IT IS RECOMMENDED THAT THE SAFE SUPPLY IS TAKEN FROM UPSTREAM OR BEFORE THE WASHER(S) SUPPLY TO ENSURE MAXIMUM AVAILABLE PRESSURE IS SUPPLIED TO THE DRYER(S) .**

2. **WHERE EXISTING SERVICES ARE TO BE CONNECTED TO. THE INSTALLER MUST ENSURE,THAT THESE ARE ADEQUATELY SIZED AND THAT THEY ARE IN GOOD WORKING ORDER. FOR EXAMPLE, IF A DRYER IS TO BE CONNECTED TO AN EXISTING EXHAUST IT MUST BE CHECKED FOR ANY BLOCKAGES DURING INSTALLATION AND BE CLEAR OF ANY LINT.**

3. **FOR MULTIPLE MACHINE INSTALLATIONS SERVICES MUST BE INCREASED IN SIZE ACCORDINGLY. I.E EXHAUST DUCTING, GAS SUPPLY ETC.**