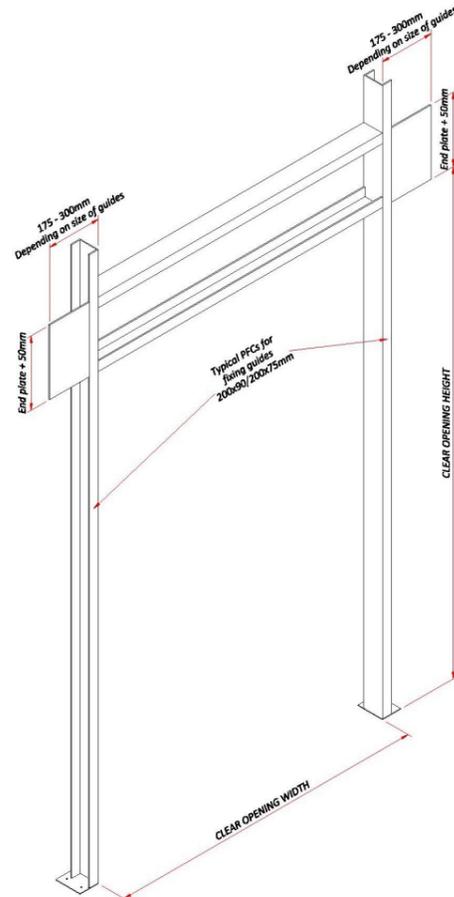


Typical steelwork requirements



Features, Appearance and Performance options

Door sizes	Models of industrial roller shutter doors are available to suite all requirements, available all sizes normally up to 10M in width and 10M in height larger available to special design	Finish	The door profiles can be finished with a galvanised steel, plastisol or powder coat finish colour to availability of powder. Higher paint grades available.
Door activation	Press buttons in full view of door. Impulse open and "hold to run", close. Automatic operation via sensors complete with safety devices, high and variable speed options.	Curtain options	75mm convex interlocking galvanised roller shutter laths, profiles are available in three thicknesses 18G, 20G and 22G this considerably varies the cost and significantly improves rigidity, security and wind resistance as the section thickness increases.
Safety options	Alls doors comply to the antifall safety requirements via safety brake or built in safety mechanism. This is in the form of either an integral motor safety brake or an auxiliary safety brake, depending on motor choice. Options for auto doors include light curtains, safe edge on the bottom rail, photo cell protection, presence sensors, warning signs, and traffic lights.	Wind Class	Windlock guide system provides up to wind class 5. (1000 pascals + 25%) for doors up to 10m clear opening width. higher levels available to agreed construction, third party tested to 5000 pascals at 8M in width
Normal Operation	Press buttons or key switch although	Hoods, motor enclosures and infills	All available in galvanised and powder coat, or stainless steel.

INDUSTRIAL ROLLER SHUTTER



Roller shutters to railway shed in powder coat finish and non insulated lath profile..

Roller shutters are the most versatile of door systems . They can be fitted virtually anywhere , at sizes up to 10M x 10M, in a host of variable specifications from bog standard to state of the art, fire, security compliant and including extreme wind resistance with a model tested to 5000 pascals.

The door curtain is available in insulated or non insulated Steel, stainless steel or aluminium profiles, optionally galvanised, powder coated or pre-finished coatings covering a wide range of options to suit required environments. Listed are some of the options available, if nothing meets your specification ask! We do lots of specials.

Roller shutter doors are UK designed and manufactured, backed by Hart's over 70 years' experience in roller shutter door systems. The heavy duty construction is suitable for all door openings and will efficiently deliver performance for many years. Roller shutters comply with all required British Standards and Health & Safety requirements.

Data Sheet : Roller Shutter with 75mm lath profile.

Standards:

Roller shutters are designed to comply with the British and EEC safety regulations for power operated machinery. Available up to 10M x 10M. Specification can be varied to meet operational requirements. Compliant with EN 13241-1:2003 etc. & manufactured & installed to ISO9001/20015 UKCA mark.

Operation:

Electrically operated via locally located push buttons (hold to run) or automatically activated by sensors all located to maximise efficiency and compliant to safety in use regulations. Emergency override in hand crank or ground floor hand chain

Door Curtain:

The universal 75mm convex interlocking galvanised steel or stainless steel laths, retained at ends by malleable steel end wearing lugs riveted on via solid steel rivets. available in three thicknesses 18G, 20G and 22G this considerably varies the cost and significantly improves rigidity, security and wind resistance as the section thickness increases. Insulated laths available

Bottom Rail:

Standard Tee section with optional rubber seal. (Note: There must be a fall of the door threshold to the outside as this seal is not sufficient to prevent wind blown water penetration without a step or proprietary drainage system). Class 0.

Door Guides & Wind Resistance

Standard door is wind class 2 with standard upgrade to class 5. When requirements exceed this, increasing levels are design are can be completed and prototype tested inhouse to max 5000 pascals. The available guide depth in mm 50, 63W, 75, & 100w. All as appropriate to the door size and wind resistance requirements.

End Plates Roller Supports:

Steel profile end plate with steel angle fixing to door frame structure. The end plates support the weight of the door and are fixed through the angles to the structure.

Roller box, Motor covers and infills:

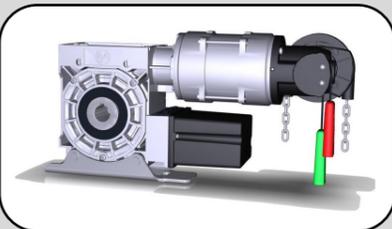
Optionally provided as weather or dust cover for the roller and separately the motor this can be upgraded with heaters and insulation for high humidity or low temperature environments. Supporting frames and infills for doors in combination with other doors or fixing to non flat surfaces designed as appropriate. Optionally galvanised steel, powder coated or stainless steel.

Finish:

Standard is galvanised. Curtain options include Plastisol pre finish, powder coat (max 8m). The door curtain guides and bottom rail galv or in powder coat. Non galvanised surfaces such as heavy support angles, additional frames and tube will normally be finished in black undercoat.

Motor Direct Drive:

Safedrive direct drive geared motor unit in multiple sizes include digital limits, limit overrun protection. High precision worm gearbox incorporating safety brake (negates the necessity for auxiliary safety brake). optionally, ground floor hand chain emergency operation, IP 65, remote signalling, and speed options



Motor Chain Drive:

Where side room is at a premium, or very large doors required, a flange mounted chain driven motor and safety brake is available, reducing the side room and potential access requirements.



Speed and automation:

Single speed 125-200mm per second or variable speed via inverter from approx. 125 to 500mm per second dependant on door size and drive availability.

Power supply:

Both Single or 3 phase available dependant on door size, frequency and speed operation.

Control Panel options:

State of the art digital panels with increasing functionality across the range. Optionally Press button and or automatic operation. Plug-in & pre wired, ground floor limit adjustment, 24 volt safety systems in a IP65 box, control system with integral digital display of status. A host of readily available software options and panel upgrades for door interface, air locks including traffic lights and signalling confirmation with spare terminals. Connected to mains via plug to power socket provided by others.



TS971, inc lock off E stop



Electric roller shutters are versatile doors and can be applied in various harsh environments with only slight modifications. Shown above is an electric roller shutter fitted internally to a train wash station. Enclosures, specially protected electronics allow this door to be frequently exposed to the water and solvents used in cleaning.

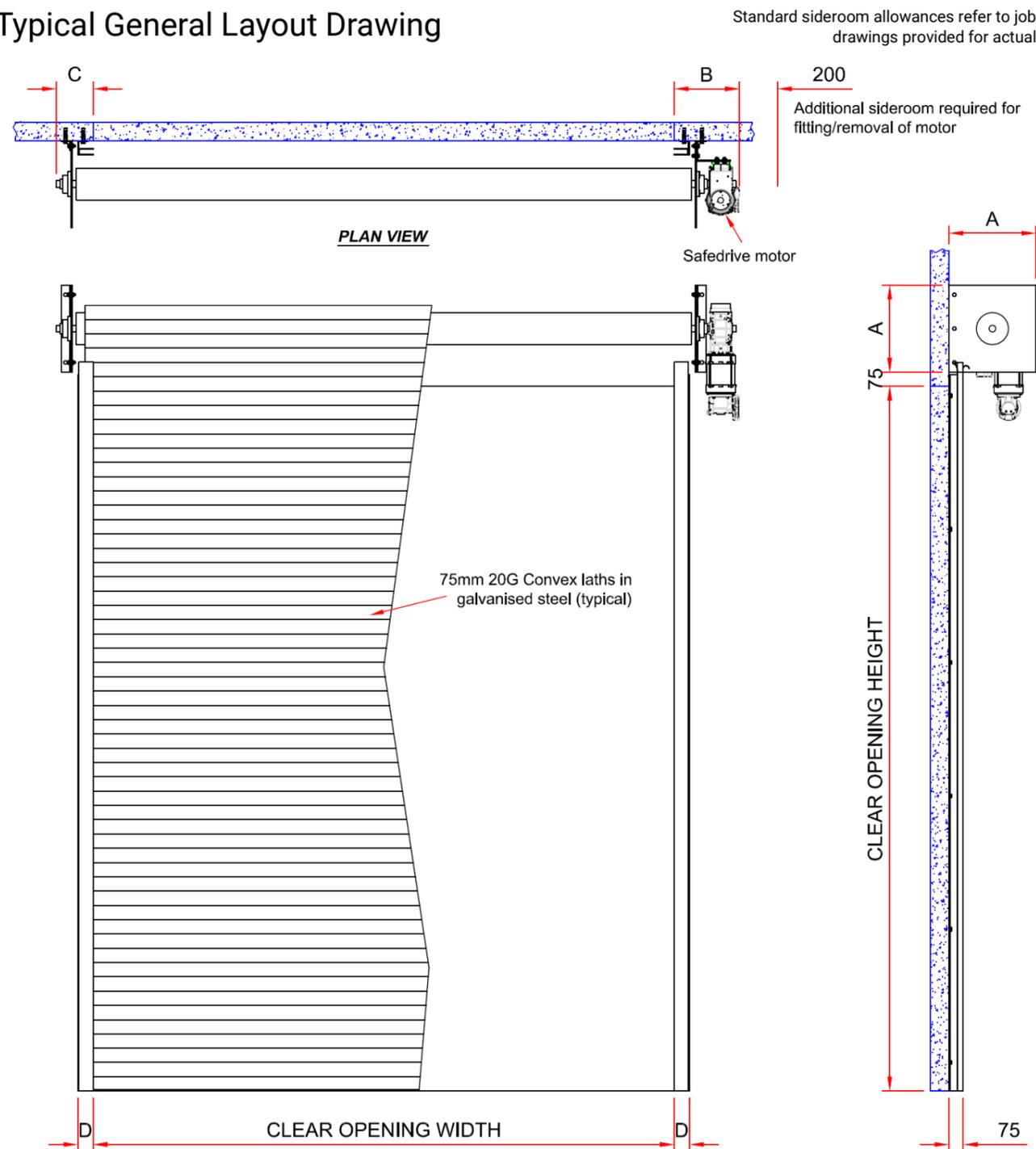


Option of powder coat finish all visible parts



Hart Door Systems Ltd. were contracted to install a variety of electric roller shutters for the National Museum Of Egyptian Civilization in Cairo, included among these was one 12.5m wide and 2.5m tall (shown above).

Typical General Layout Drawing



FRONT ELEVATION
ELECTRIC ROLLER SHUTTER

Doors Up To (W x H)	A	B	C	D
4.50 x 2.50	305mm	D + 270	D + 120	50mm
4.00 x 3.50	356mm	D + 270	D + 120	50mm
4.75 x 4.50	406mm	D + 270	D + 120	75mm
5.50 x 6.00	457mm	D + 270	D + 120	75mm
6.75 plus	496mm-650mm	D + 270	D + 120	100mm

SECTION THROUGH



Visit www.hartdoors.com to see our full range of products