

Contractor :



Client :



PROJECT: Color Coating Line NO.2

TECHNICAL SPECIFICATION FOR RAPID PACK DOORS

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REV.	DATE	DESCRIPTION	DEVELOPED	REVIEWED	VERIFIED	AUTHORIZED

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1. General Description

1.1. Introduction

This enquiry covers the requirements for design and supply of rapid pack doors that will be installed in the Color Coating Line No.2 (CCL2) For Home Appliance for Mobarakeh Steel Company, located in Isfahan province. The plant is expected to produce 120.000 t/y of color coated coils.

This system is classified as “heavy-duty” and the general design shall be in accordance with the standards suitable for these services.

1.2. Site condition

1.2.1. Plant Location

The site is located in Mobarakeh plant which is located at 33° 20' N, 51° 32' E, and 75 km south west of Isfahan. The altitude is about 1800 m above sea level.

1.2.2. Ambient Condition

Ambient Pressure	MIN 603.2 mm HG Max 626.9 mm HG 0.836 kg/cm ² (Annual Mean)	
Barometric pressure	820 mbar	
	summer	winter
Average max. Dry Bulb temperature	+39°C	+21 °C
Wet Bulb temperature	+21°C	-10°C
Daily Temperature Range	15 °C	
Maximum ambient temperature	+45°C	
Minimum ambient temperature		- 20°C
Average min. Dry Bulb temperature		-10°C
Relative Humidity	75% (high) 10% (low)	
Max Rain	44 mm per day	
Precipitation	93.2 mm per year (average)	

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Basic Wind Pressure (As Iranian Standard)	60.5 kg/m ²
Basic Wind Speed (As Iranian Standard)	110 km/hr.
Seismic Design base acceleration value	0.3 g
Pollution	Very High
Duty Cycle	Heavy
Directions-predominant	21.6% North West 15.2% south west 13.8% south east

1.3. Nameplate & Labels

The nameplates must meet the following requirements:

They must be well positioned, clearly visible, and easy to identify.

Nameplates shall not be easily removable.

Nameplates for important components such as motors, gearboxes, etc., are to be positioned on the components.

They must indicate the type, serial number, year and place of manufacturing, and reduction ratio.

1.4. Units

The “SI” system of units shall be used throughout for design, dimensioning, engineering, layout, sizing, etc

2. Scope of supply

Includes the followings:

- Engineering
- Manufacturing and Supply of complete system
- Preparation and submission of documentations
- Performance of tests and inspections
- Application of rust preventives
- Supplied equipment should be guaranteed

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- Appropriate packing and delivery
- Coordinating and resolving all engineering information related to equipment
- Special tools for special parts shall be supplied
- 2 years' spare part list
- List of capital spares
- commissioning spares
- Supply and manufacturing of fast wearing parts
- Major material shall have prior approval of the purchaser
- Material supply regarding the following requirements:
 - A) All the material used shall be new and conform to the respective
 - B) Specification given on drawing and/or in technical specification.
- Interconnecting piping and wiring between equipment and accessories (if any)
- Supply of the fully fabricated equipment
- Electric motors and required instruments for protection
- All of required electrical and instrument devices (Local distribution board and control box, cable, ...)
- Bonding and earthing
- Supply of Local Electrical & Control Panel (L.E.C.P)

3. Equipment Specification

3.1. Application data

Design temp.	45(°C)
Continuous duty	24 (hr/day)
Annual operation	7680 (hr/year)

Notes:

- Vendor should submit complete technical information, catalogue, load data and drawing for evaluation and accommodating with design.

3.2. Technical Data

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Technical Specifications List for Rapid Pack Polyester Automatic Doors – B.M.P Model, Italy (Colored Sheet Expansion Section)

1. Electric Motor: Three-phase, 1.5 kW, 2800 RPM, equipped with an N.C. brake and an emergency brake release wire.
2. Gearbox: Worm-type with a 20:1 reduction ratio ($i=20$), model NMRV050.
3. Polyester Curtain: DTX100 type, 0.8 mm thick, Class 2 fire-resistant, acid-resistant, soundproof, thermal and cooling insulation, abrasion-resistant, in the color specified by the end-user.
4. Limit Switch: FCN25 three-cam type with related accessories (pulleys and coupling belt), approved by the employer.
5. Structure: Galvanized steel sheet, 1.5 mm thick, 25 cm wide.
6. Door Shaft: Single-piece, secured with bearings in the middle of the shaft. (The motor must be installed horizontally on the shaft.)
7. Safety Sensor (Photocell): Autonics brand, 24/12V AC/DC, manufactured in South Korea.
8. Inductive Radar Sensor: APRO20 model, 24/12V AC/DC, manufactured in Italy.
9. Warning Flashing Light: 220V, to indicate door opening and closing.
10. Internal Galvanized Pipes: Lightweight, with varying diameters based on door width, NCS type.
11. Control Panel: Powder-coated cream color, including necessary components (contactor, thermal relay, power switch, electronic board, and required push buttons), approved by the employer.
12. Hooked & Lifting Belt: High-quality, 5 cm wide, 2 mm thick, abrasion-resistant, tensile strength of at least 1200 kg.
13. Counterweight Belt: High-quality, 5 cm wide, 5 mm thick, abrasion-resistant, tensile strength of at least 2000 kg.
14. Counterweight: Sized appropriately based on the weight of the polyester curtain and internal galvanized pipes.
15. Electrical Wiring: 1-inch galvanized conduit and $5 \times 1.5 \text{ mm}^2$ flexible cable must be used.

3.3. Additional Notes:

- All unspecified spare and consumable parts listed above require prior employer approval before use.
- A spare parts list (Form RIC124) must be submitted to the maintenance technical office.
- A one-year warranty on components and five-year after-sales service must be provided.

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- All relevant documents and catalogs must be submitted upon delivery.
- Automatic door dimensions must align with the employer's provided technical drawings and approvals.