



شرکت نوادر
NOWDAR CO.

**THE FIRST MANUFACTURER OF STEEL DOORS & PANELS
WITH GALVANIZED OR ELECTROGALVANIZED FRAMES IN IRAN**

*"Doors, Frames, Partitions, Curtain-Wall Panels,
Security Doors & Fire - Proof Doors"*

www.nowdar.com





*International European awards for management, quality & customer satisfaction
that Nowdar Co. has received or chosen to receive in last two decades.*



PRODUCTS OF NOWDAR CO.

- ◆ Entrance doors more than 300 various models
- ◆ Burglar-resistant security entrance doors
- ◆ Fire-resistant doors in accordance with international standards
- ◆ Interior doors for rooms, bathrooms & WC
- ◆ Double-swinging doors for crowded places
- ◆ Doors for schools, universities & public offices
- ◆ Various doors for hospitals
- ◆ Various doors for laboratories & radiologies
- ◆ Various doors for pharmaceutical factories
- ◆ Various doors for electric power plants & sub-stations
- ◆ All the frames of doors are made of galvanized or electrogalvanized profiles which contain impact absorber plastic or heat-resistant silicon strips
- ◆ Steel-plast partitions for interior partitioning of office buildings & public lavatories
- ◆ Envelope curtain wall panels for high-rise & multi-story buildings
- ◆ Special-purpose industrial doors

NOWDAR CO. IS; THE FIRST MANUFACTURER OF STEEL-PLAST PRODUCTS IN VARIOUS TYPES OF: FLUSH, EMBOSSED, FIRE-RESISTANT & SECURITY DOORS WITH GALVANIZED & ELECTROGALVANIZED FRAMES; IN IRAN & MIDDLE EAST. ALSO IT IS PIONEER IN MANUFACTURING OF STEEL-PLAST PANELS FOR CURTAIN WALLS & PARTITIONS FOR OFFICES & PUBLIC LAVATORIES.

CHARACTERISTICS OF STEEL-PLAST PRODUCTS

Experience shows that the most important items that make steel-plast products more distinctive are:

Better quality, strength & longer durability, weather-resistant in extreme climatic conditions & additionally with great significance, beauty, precision & mass production.

Another important quality of steel-plast products e.g. doors is that they are supplied as a complete product i.e. the door includes: the frame, door leaf, lock, hinges & all other necessary accessories. After-sales services like installation of the door leaf on the frame, adjustment of the door, fitting of the hardware will be done just when the customer's building is ready. With regard to the above mentioned items, the customer doesn't need to lose time between blacksmiths, carpenters, painters & hardware sellers & hence these jobs will be carried out by Nowdar Co. as a whole in the shortest possible time, causing economy in time, energy & costs.

Highly qualified staff of Nowdar Co. with its more than four decades experience in the above mentioned fields are ready to provide all the requirements of the architects, civil & consultant engineers & to cover all the demands of building industries.

• COMPANY BACKGROUND & PERFORMANCE

- More than 40 years experience in production
- Vast design capabilities
- Quality control at all manufacturing processes
- On time deliveries for small or large orders
- After-sales services

• BEAUTY

- Wood beauty & steel strength
- Nice & unique appearance
- Various & satisfactory colours
- Combination of two colours or more to obtain unlimited designs
- Excellent, long lasting & beautiful hardware



• CLIMATICAL FACTORS

- Resistant to humidity & vapour
- Constant squareness & dimensional stability
- Resistant to shaking
- Resistant to air infiltration



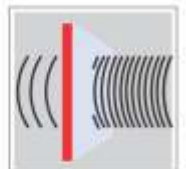
• DURABILITY & STRENGTH

- High strength with a lightweight
- Resistant to corrosion
- Washable & discolour-proof
- Hard body impact resistance
- Insects-attack proof



• ENVIRONMENTAL ASPECTS

- Quiet closing & opening
- Sound insulation
- Heat insulation
- Dust sealing



• FORCE MAJEURE FACTORS

- Resistant to flames
- Prevention of quick transmission of fire
- Burglar resistance
- Resistant to electric sparks





A BRIEF INTRODUCTION TO STEEL-PLAST DOORS

The steel-plast doors consist of two main parts: 1 - Door leaf
2- Frame

1- Door Leaf:

The steel-plast door leaf is consist of three main parts:

1-1-Steel-plates 1-2 Infill Materials 1-3 Hardware

1-1) Steel-plates:

The leaf of steel-plast door is composed of two galvanized steel plates, one for the front face & the other for the back face.

The steel-plast door leaves are made of following three types of steel plates:

◆ PVC Laminated Galvanized Plates:

Galvanized base-plate with 0.6 mm thickness coated with resistive PVC laminate including a strippable protective nylon film is available in various natural woodgrain colours e.g. Oak, Mallach, Walnut, Mallabar, Hazelnut, Spruce-etc & various beautiful colour e.g. textile, leather, metallic & snowy grains...etc. with the following standards:

EN10327DX51, ST12.03 DIN 1623, BS2989/1982Z2 & JISG3302

◆ Pre-painted Galvanized Plates:

Galvanized base-plate with 0.6 mm thickness coated with weather-resistant polyester, silicon or electrostatic powder kiln-dried painting with 25 micron or more thickness including the strippable protective nylon film with the following standards:

EN 10142-3, EN 10169, ST 12.03 DIN 1623, BS 2989 Grade Z2 & JIS G3302

◆ Galvanized & Electrogalvanized Plates:

Skin pass galvanized or electrogalvanized with 0.6-1.0 mm thickness plates which are galvanized from both sides in their natural grey colours will be painted after the production of the doors according to the customer order. Those plates are completely paintable with either air-dried or kiln-dried procedures. The standards of this type of plates are as follows:

ST 12.03 DIN 1623, BS 2989-Z2 & JIS 3302 SGCC.



1-2) Door Infill Materials:

Polyurethane rigid foam with fire retardant class B2 & specific weight of 32 - 40 kg/m³ & coefficient of heat transfer of 0.018 W/m.k at 25°C & heat resistance up to 120°C with good dimensional stability is the material that fill the inner space of the door leaves.

1-3) Door Hardware:

Forged frame-hinge with M12 screw which is adjustable in 3-dimensions & leaf hinges with 2 or 3 M6 Allen screws, which are made of drawn industrial bars with 16 mm thickness, fixed to the door leaves with spring washers & are adjustable in 3-dimensions too; locks & handles which are locally made or imported are to be selected by the customer. Other additional hardware & accessories e.g. auxiliary lock, security lock, electric strike door opener, door knocker & viewer, hydraulic door closer, spring door stopper, glazing kit, ventilating grill...etc. are optional & according to the customer selection, will be added to the doors.

NOWDAR FLUSH DOORS



Hazelnut



Walnut



Mallabar



Spruce



Oak



Ash

2- GALVANIZED Or ELECTROGALVANIZED FRAMES

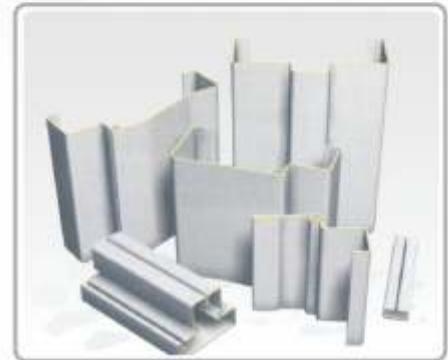
All of Nowdar frames are made of skin-pass galvanized or electrogalvanized steel plate of 1.5 mm thickness with the following standards:

ST 12.03 DIN 1623/1541, BS 2989 –Z2 & JIS G3302 SGCC

These frames contain sealing strip to absorb noise & impact & to prevent air & dust ingress.

The profiles of the frames are produced by a heavy duty roll-forming machine inside Nowdar factory in several types & cross-sections to be used for different applications & requirements.

The frame production line of Nowdar Co. has a high precision & speed. The frames are made according to a wide range of standard sizes which usually cover all building demands, as follows:



- Galvanized & electrogalvanized frames with normal or heat-resistant silicon sealing strip.
- Entrance-door frames in various cross-sections with different widths.
- Adjustable two-piece frames due to wall thickness.
- Double-swinging door frames.
- Converting frames to be installed on the existing old frames of the buildings.



STANDARD DIMENSIONS OF NOWDAR FRAMES & DOORS

The standard elevation of the frame including lower anchor part is about 216 cm, where the net elevation from the finished floor to the top of the frame head is 210 cm & about 6 cm of the lower part of the frame is dug beneath of finished floor.

The standard height of the door leaf is 205 cm where the gap between bottom of the door leaf & finished floor is about 2 cm, which might be changeable according to the requirements needed.

The standard net elevation of the frames with lighting transom is 230, 240, 250, 260, 270, 280 & 290 cm.

Whenever & wherever required & according to the customer order, there is a possibility to produce frames with doorsills or thresholds.

The following tables show the standard sizes of the frame & door leaves.

Single leaf Doors			One & Half leaves Doors			Double leaves Doors					
No.	Frame size	Leaf size	No.	Frame size	Leaves sizes	No.	Frame size	Leaves sizes	No.	Frame size	Leaves sizes
1	60x210	53x205	8	103x210	23, 73x205	16	133x210	63, 63x205	25	173x210	83, 83x205
2	70x210	63x205	9	113x210	33, 73x205	17	143x210	63, 73x205	26	183x210	83, 93x205
3	80x210	73x205	10	113x210	23, 83x205	18	143x210	68, 68x205	27	183x210	88, 88x205
4	90x210	83x205	11	123x210	33, 83x205	19	153x210	63, 83x205	28	193x210	93, 93x205
5	100x210	93x205	12	123x210	23, 93x205	20	153x210	73, 73x205	29	203x210	98, 98x205
6	110x210	103x205	13	133x210	43, 83x205	21	163x210	73, 83x205	30	203x210	93, 103x205
7	120x210	113x205	14	133x210	33, 93x205	22	163x210	78, 78x205	31	213x210	103, 103x205
			15	143x210	43, 93x205	23	163x210	63, 93x205	32	223x210	108, 108x205
						24	173x210	73, 93x205	33	223x210	113, 113x205



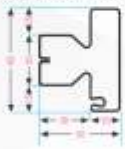
CROSS-SECTION OF NOWDAR FRAME-PROFILES

Fig. Shows position of sealing strip on the frame



Transom profile

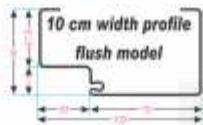
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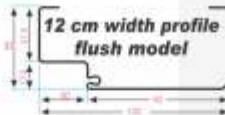
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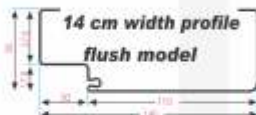
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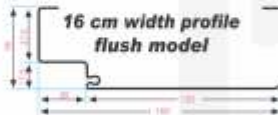
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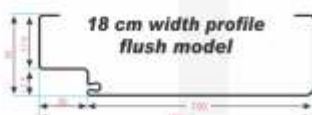
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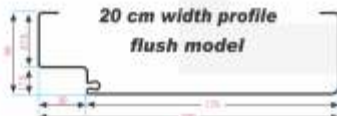
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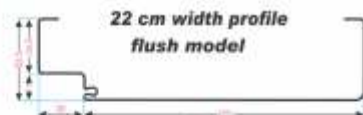
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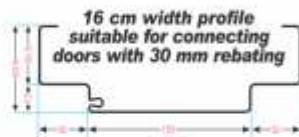
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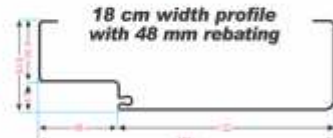
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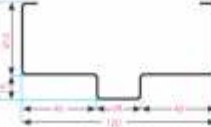
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7 cm width profile suitable for partitions

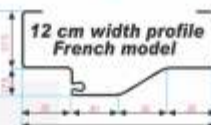


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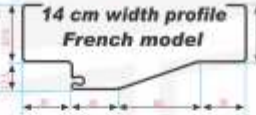
12 cm width profile suitable for Double-swinging Doors



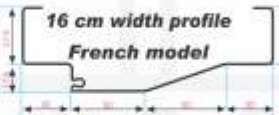
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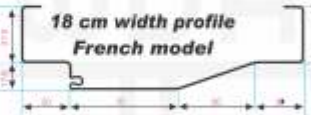
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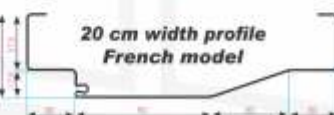
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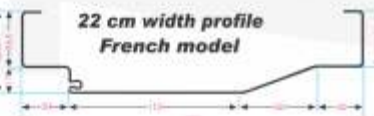
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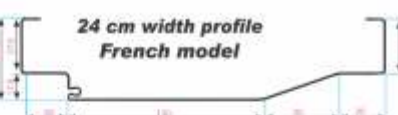
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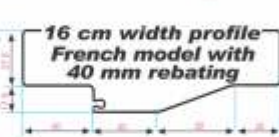
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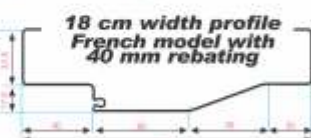
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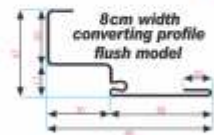
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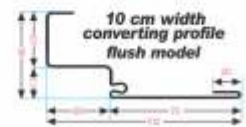
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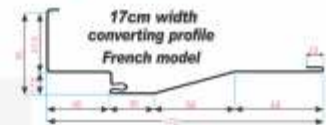
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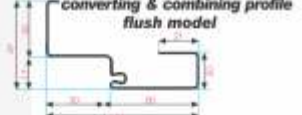
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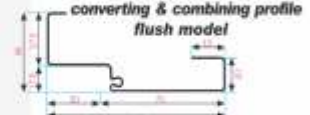
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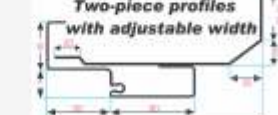
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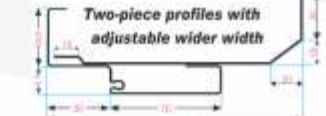
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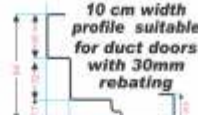
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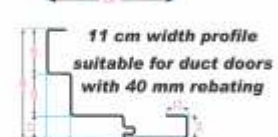
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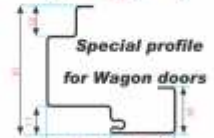
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NOWDAR FIRE-RESISTANT DOORS

Fire-resistant doors compliant With international standards

- Emergency exit doors
- Panic exit doors
- Hospital doors for Fire-zones
- Doors for stores & inventory buildings
- Doors for power-plants
- Doors for IT & server rooms



SPECIFICATION OF FIRE-RESISTANT DOOR ASSEMBLIES

✦ FRAME

The profile of the provided frames is made of 1.5 mm thick galvanized or electrogalvanized steel plates. The frames include impact absorber & sealing silicon strip which resists the heat up to 400°C. In the case when fire/smoke-resistant doors are required, intumescent strip could be added to the frames

✦ DOOR LEAF

The fire-resistant door leaf is made of the following materials:

★ Door Faces

The door leaf is composed of two 1.0 mm thick standard galvanized or electrogalvanized steel plates, one for the front face & the other for the back face. These two plates pass through many manufacturing processes, like cutting to size, cut outs, bending & required reinforcement for hardware & any other ordered accessories.

★ Door Reinforcement

A special rectangular skeleton, with inside dimensions of the door leaf, is made of section steel profiles & constructed separately. Any reinforcement required for any ordered hardware should be added to the skeleton in this stage. Provisions for glazing of the door should be done in this stage too.

★ Stiffeners

The door faces themselves are reinforced from inner side by 1.0 mm thick horizontal angle-bars called stiffeners, which are distributed & spot-welded in max 300 mm distance between top & bottom of the door faces taking into account that they are not connected to each other to prevent heat transfer between those faces.

★ Infill Materials

The two faces of the door after passing through above mentioned processes will be filled with rock wool with specific weight of 100-150 kg/m³, coefficient of heat transfer 0.035 W/mk in 25°C, heat-resistant up to 850°C without any deformation. Research by Nowdar Co. established that this material is the best fire-proof material that we were able to find. It has test certification issued by KRUPP KOPPERS CO. in Germany.

★ Door-leaf Assembly

The front face-plate of the door leaf is filled with rock wool panels with intended specific weight due to fire-rating of the door. Addition of special fire-proof adhesive to the front & back plates of the door is essential, to stick firmly to the infill materials & to prevent the door during its usage from deformation. The two faces are then assembled to each other & welded in such a way that the door leaf should be free from warping, wave buckles or any other defects.

✦ Door-leaf Painting

Finally the door leaves will be painted in various standard colours or in customer-selected colours by modern painting shops & kiln-dried at the end.

✦ Hardware

The hardware used are selected from high quality materials; some are produced inside the factory, some according to Nowdar orders & some are purchased.

These hardware are as follows :

Forged frame M12 hinges

Leaf hinges with higher strength fitted with M6 allen screws

Locally made or imported high quality locks

Emergency & panic exit devices with push bars

Locally made or imported high quality handles

✦ Additional Accessories

- ◆ Glazing kit in various sizes according to the required standard
- ◆ Secured double glass
- ◆ Protective stainless-steel plates for middle & bottom of the door
- ◆ Hydraulic door closer
- ◆ Intumescent smoke-resistant strip
- ◆ Electrically controlled device





SECURITY DOORS ACCORDING TO INTERNATIONAL STANDARDS

- Type 1&2 security doors (with skeleton&/or wire mesh & auxiliary lock)
- Type 3&4 security doors with higher resistance (with skeleton &/or wire mesh & multi-points lock)

The manufacturing of the security doors & their appearance is similar to normal steel-plast doors, but for more strength & resistance, in addition to strengthening of hinges & lock housing, the door inside space is reinforced by skeleton or skeleton & wire-mesh together.

Nowdar security doors are classified according to European standard requirements with respect to the strength & field of application of different types of security locks. Type of security doors are explained in the front

Table of types & specifications of Nowdar security Doors

Type	NO. of Hinges	Profile skeleton	Wire mesh	Cylinder lock	Auxiliary lock	Multi-points lock
1-A	3			✓	✓	
1	3	✓		✓	✓	
2	3	✓	✓	✓	✓	
3	3	✓				✓
4	3	✓	✓			✓

CHARACTERISTICS OF NOWDAR SECURITY DOORS

These security doors, in addition to properties of normal steel-plast doors, have the following characteristics too:

- High security against burglary
- High resistance to the impact of hard bodies
- Secured steel hinges with fixing screws & ball-bearings
- Possibility to install various security locks.
- Strengthened frame in different types
- Reasonable weight of the door, compared to other similar doors
- Succeeded in many tests in Germany
- Classified & produced to European standards.



One & Half Leaf Door - B02-10



One & Half Leaf Door - TE1



One & Half Leaf Door - M04

NOWDAR EMBOSSED SECURITY DOORS



A01-81



TD1-H10



T21-R01



TA1-M00



T 31



H04



TD1-M10



TF1-V03



Two Leaf Door - M04



Two Leaf Door - M02



BT1-J17



H02



TE1-M00



T31-M80



T31-J18



C03-D-MCA5006



A03-D-MM3140



M01



M02



M03



M04



M15

NOWDAR DOORS, COMBINED FROM ONE COLOUR OR MORE



T11-M10



T31-M80



T31-M20



TA3-M11



T11-M47



T41-M44



T31-M10



T81-M41



BS1-H02



BS1-H07



BS1-W01



BT1-J01



A01-10



A02-10



A03-10



A05-10



A06-10



A14-10



A21-10



A23-10



B01-10



B02-10



B04-10



B05-10



B14-10



C02-10



C06-10



C09-10



C11-10



C13-10



C21-10



C25-10



D01-10



D02-10



D03-10



D04-10



D08-10



E01-45



E01-TL1



E02-10



E07-10



E08-10



E09-10



E11-10



F03-10



F05-10



F09-10



F12-10

NOWDAR FULL GLASS DOORS



Full Glass Doors



Full Glass Doors



Full Glass Doors



Full Glass Doors

NOWDAR EMBOSSED & GLAZED DOORS



BS3-V04



E01-G01



A01-G02



E35-M00-G01



A01-G01



F12-G01



D17-G02



D01-G03



SPECIAL PURPOSE INDUSTRIAL DOORS

● Double-Swinging Doors

Double-swinging doors are used for crowded people circulation places, where there is need for the doors to be opened to both sides e.g. operation rooms & related departments in the hospitals, congested areas in the public buildings-etc. Normally double-swinging doors include special spring hinges, view glazing kits, bottom & middle protective stainless steel plates & spring door stoppers.



● Pharmaceutical Industries Doors

All doors required for pharmaceutical factories e.g. flush frameless double-side glazing doors which are made of anti-bacterial plates with the possibility to add to them any required accessories like electrical locks, magnetic locks transit control device, various hydraulic door closers; also two piece doors which are known as Dutch doors. These are used when, unusual passing at specified times takes place. As an example, when it is required to take big-height elements or machines out for maintenance, the upper doors which are usually always closed will be opened & when ordinarily production carriages pass through lower doors while the upper doors are closed.



● Big-size Industrial Doors

Big-size industrial doors, having special application, are used in industrial factories & buildings, include the following specifications:

- Resistance against fire
- Sound & heat insulation
- Big-size handles
- Various glazing
- One or more grills in different sizes
- Impact resistance



● Railway Wagon Doors

These doors have been manufactured with common cooperative work between Nowdar Co. & Tehran Wagon Manufacturing Co. & with the aim of local production of gang-way doors of underground-metro wagons including glazing & special hinges. They are installed in Metro wagons which are currently in use.



NOWDAR PARTIONING PANELS FOR OFFICE INTERIOR PARTITIONS & FOR PUBLIC LAVATORIES PARTITIONS

Prefabricated partitions is one of the new structures in the building industries. Nowdar is the pioneer & first company that carries out this type of structures in public lavatories. After many years of fulfillment, knowledge & experience in this field, this product is placed in the market, with most modern & up-to-date technology.

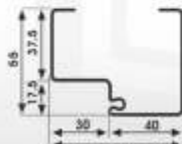
Nowdar Co. always put two subjects into consideration; one is optimization of useful areas in different building sectors, & the other is facilitation & quick performance in progress of building works & operations for the contractors.

Nowdar partitions are produced due to requirements of various projects. The whole floor with all the lavatories, including sewage system and piping, are completed prior to installing the partitions. This optimizes the effort in construction. There is also possibility; where water piping is required to pass through the partition panels to place the pipes & any other plumbing facilities inside the panels during the manufacturing processes according to the demands of the designers.

Nowdar 42^{mm} partition panels, which are designed for easy & quick partitioning system, are available in 100^{mm} increment modules starting from the width of 200 mm up to 1200 mm with different heights according to the customer requirements. The panels are designed in such a way that they have the necessary flexibility to be joined to each other to establish lengthwise connection or crossed, T-form, U-form & L-form connections. Sharp & beveled corner one-piece L-form panels are also produced for corner partition walls to obtain smart & nice appearance.



Profile (code 102)
Suitable for partitioning



Frame profile (code 4073G)
Suitable for partitioning & dry walls.

The stands of the partitions are designed in such a way that, in addition to their strength & beauty, they are made of anti-corrosive materials. Their height leveling against the slope of the floor could be done by adjustable stands; a nut rotating around the leveling screw is provided inside the panels.

Briefly, some of distinctive characters of partitioning of lavatories are as follows:

- Integral flooring for all the lavatories in one-time.
- Beautiful & smart by flexible design criteria
- Easy & quick erection.
- Height leveling by adjustable stands.
- Washable & posses high resistant against humidity
- Max. occupation of useful spaces.
- Easy washing & cleaning of the floor, because of the gap between the floor & bottom of the panels.
- Light weight with high strength.
- Possibility of placing cold & hot water pipes inside the panels.
- Possibility of dismantling & reinstalling in other place.



for Partition-floor gap
easy washing & cleaning



● Stands for partitions made of brass or Aluminium with chrome electroplating fixed on the ground with the possibility of height adjustment & levelling



ERECTION STAGES OF PARTITIONS IN PUBLIC LAVATORIES



1 Place is ready for erection of the partitions



2 Specifying floor elevation levels by laser device



3 Specifying floor elevation levels by laser device



4 Specifying difference in levels in many points



5 Marking the final elevation



6 Marking the final elevation in different points



7 Adjusting & leveling the first panel



8 Adjusting & leveling from the other side



9 Fitting the first panel to the floor & the wall



10 Adjustment of the wall element



11 Fitting the wall element



12 The first unit of lavatories is ready for door leaf mounting



13 Mounting of door leaf for the first unit



14 The first unit is completed



15 Preperation of the second unit



16 Mounting of door leaf for the second unit



17 The second unit is completed



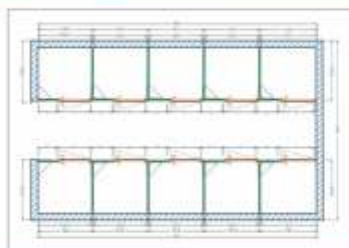
18 Installation of other units according to Fig. No.7, 8 & 9



19 Hardware fittings



20 Lavatories ready for use



★ Plan designed by Nowdar Co.



★ Complete erected partitions according to the plan

SOME OF INSTALLED NOWDAR PARTITIONS IN DIFFERENT PROJECTS





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