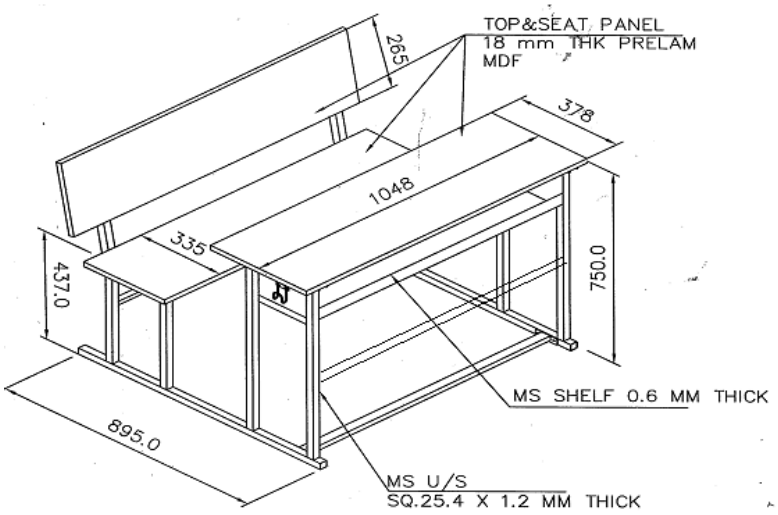
SPECIFICATIONS

Class Room Table (Dual Desk) with Attached Chair

The product should be in complete knock down structure as much as possible/feasible enabling ease in transportation and assemblies within classrooms.The panels are made from 18 ±0.5mm thk Pre-Laminated MDF (IS 14587) with 2 mm PVC edge banding on all sides.Top Dimension shall be 1048 X 378mm. Top Height shall be 750mm. Seat Dimension shall be 1048 X 335mm. Seat Height shall be 437mm. Back dimensions shall be 1048 X 265mm. Size may vary +/- 5mm. The Under structure is Made of ERW tubes[IS 7138] 25.4 ±0.3mm x 25.4 ±0.3mm x1.2 ±0.096mm thk powder coated 50microns(±10) at base which are welded to the desk and seat supports that are made of MS 'C' sections 29+/-0.3mm X 24.9+/-0.3mm X 1.2+/-0.096mm thick powder coated 50microns (±10). Stiffeners that are provided between the 2 vertical frames at base and back of seat are made from ERW tubes[IS 7138] 25.4 ±0.3mm x 25.4 ±0.3mm x1.2 ±0.096mm thk powder coated 50microns (±10). The tubes are closed with plastic caps. Additional horizontal supports of ERW tubes[IS 7138] 25.4 ±0.3mm x 25.4 ±0.3mm x1.2 ±0.096mm thk powder coated 50microns (±10) are placed Between front legs and between back legs to add the rigidity of the structure. The storage shelves are made from 0.6 ±0.09mm thk powder coated

50microns(±10) MS sheet which is affixed below the desk top. Hooks are provided on either sides of the vertical frame of the desk, for hanging bags/bottles. They are made from 6.0 mm dia MS rods powder coated 50microns (±10) The under structure is assembled using M5 Trilobular Taptite screws. Nylon studs are provided on bottom side of RH/LH Frame. All Fabricated parts which require welding are MIG / Spot welded. The Screw joining Wooden Panels to under structure are Chip Board Screws. All steel structural components shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth. Top understructure – 960mm (W) X 310mm(D). Back Panel Support – 960mm(W) X 325mm(H). Seat support – 960mm(W) X 280mm(D). 3D View is as under:-

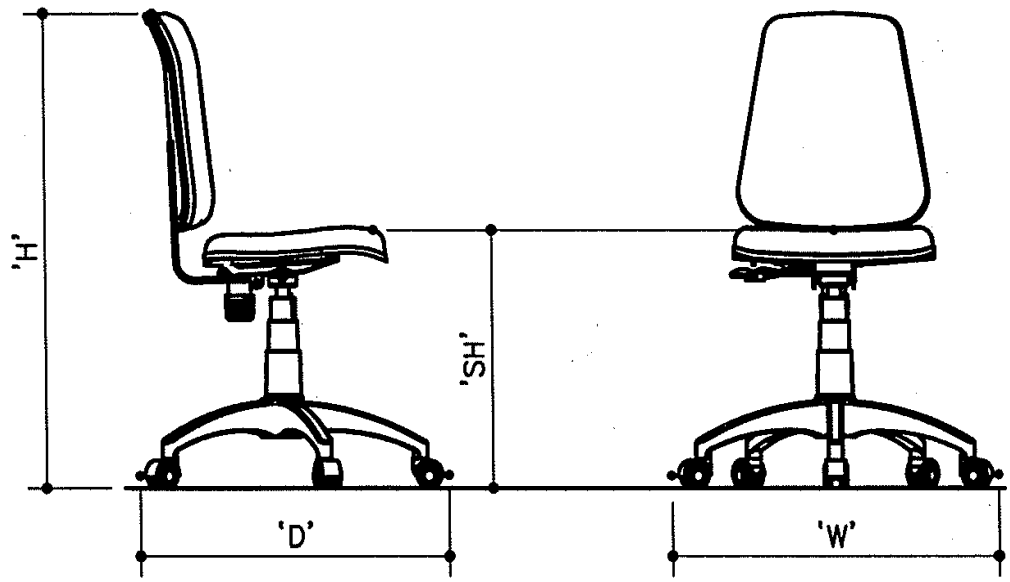


Computer Table

The product should be in complete knock down condition as much as possible/ feasible enabling ease in transportation and assemblies within premesis Dimension of the table shall be 1200 X 600 X 745mm.The Desk Panel is made from 25±0.5mm THK Pre – laminated Boards as per IS12823 with 2 mm thick PVC beadings on all sides. The Under structure is made of 50.8±0.3X25.4±0.3mmX1.6±0.096mm thk powder coated ERW tubes as per (IS -7138) at base which are welded to the vertical channels made of 1.2±0.09mm thk Powder Coated Micron 50(±10)MS " C " Sections. The Footrest is 1.2mm thk fabricated from MS sheet in C shape and Modesty panel is 0.8mm thk – 1185mm X 200mm. Footrest and Modesty panels are provided for overall stability of product . The CPU Stand is made up of 25.4mmX1.2mm thk ERW tubes, which is thereafter hooked on with the Side frame . The Tubes are closed with plastic LDPE caps. Nylon Level Adjuster of M8 size are provided to take care of unevenness in Floor. All the Metal parts shall be processed and fabricated in modern Press shop. In case of Welding, all Joints shall be welded. All Metal Parts should be powder coated, before Powder coating all metal parts shall be given anti-rust phosphate treatment. All metal parts shall be epoxy polyester powder coated and backed at 180 C in a converyorised Oven. All steel structural components are processed shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. The powder coating shall be carried out in-house on powder coating booth. The powder coated components are on regular basis tested for Scratch resistance test of 4 kgs & for Impact resistance test for 150kgs/cm. Recycled steel will not be accepted. Understructure construction – Width is flush type and depth shall be 540mm.

Computer Chair

The seat and back are made up of 1.2 cm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC lipping all around. The back foam is designed with contoured lumbar support for extra comfort.(MID BACK) SIZE: 40.0cm. (W) X 45.0cm. (H)SEAT SIZE: 43.0cm. (W) X 39.0cm. (D). The HR Polyurethane foam is moulded with density = 45 +/-2 kg/m cube and hardness load 16+/-2 kgf as per IS:7888 for 25% compression. The permanent contact mechanism is designed with 360° revolving type.14° maximum back-tilt only.Upright position locking.Tilt tension adjustment. The pneumatic height adjustment has an adjustment stroke of 12.0 cm.The bellow is 3 piece telescopic type and injection moulded in black Polypropylene. The pedestal is injection moulded in black 30% glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 61.0cm. pitch-center dia. (71.0 cm with castors).The twin wheel castors are injection moulded in Black Nylon. Pedestal should withstand load of 11120N(2500lbf) for one minute when applied vertically at center. Castors should withstand a load of 102 Kg(225lb) for 2000 cycles with obstracles and 98000 cycles without obstacles at 8-12 cycles per minute. Back of Chair should withstand repeated pull push load of 34Kg applied at vertical center line for 120000 cycles at the rate of 10-30 cycles per minute keeping the chair in fixed position and putting a load of 102Kg on seat. Seat of chair should withstand a load of 102Kg(225lb) in the form of a bag of dia 400mm(16 inch) when dropped a height of 152mm(6 Inch).



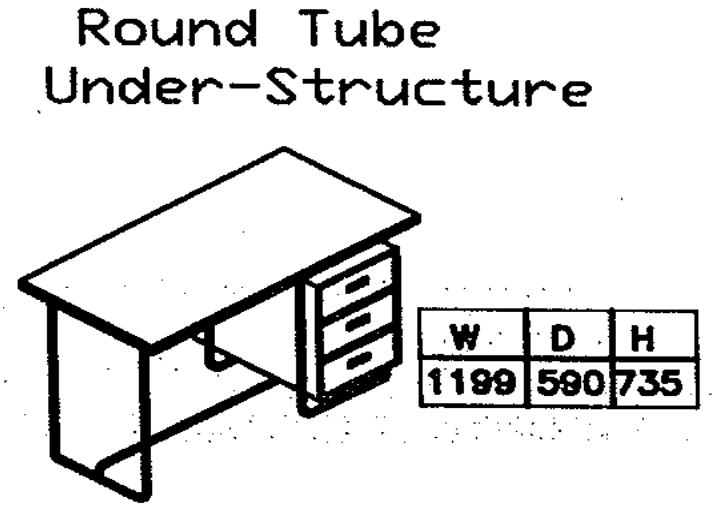
WIDTH (W):	71.0 CM.
DEPTH (D):	71.0 CM.
HEIGHT (H):	86.0 - 98.0 CM.
SEAT HEIGHT (SH):	42.0 - 54.0 CM.

THESE DIMENSIONS ARE PRODUCT OUT TO OUT DIMENSIONS & VARIATIONS WITHIN ±1.0 CM. ARE NORMAL

Office Table

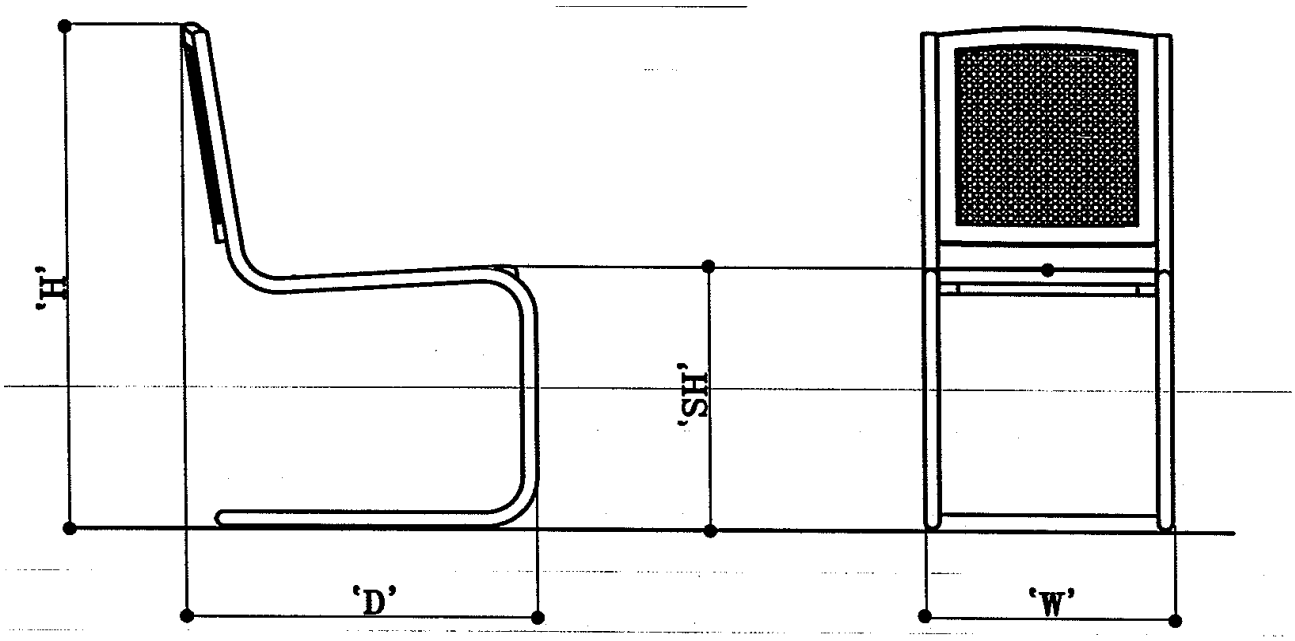
The table shall have 1199 (w) X 590 (d) X 750 (H). The worksurface of the table shall be 18 +/- 0.5mm thick Pre Laminated Board top as per IS -12823 with 2mm thick PVC edge beading on all sides. The understurcture shall be C frame of 0.9+/-0.09 mm thick powder coated 50 microns(+/-10) CRCA MS. The tubular frame shall be of dia. 25.4+/-0.3mm X 1.2+/-0.096mm thick MS ERW round tubes. It shall have 3 drawer unit & shall be 355.5mm W X 559mm D X 433.5mm H, with shell of 0.5+/-0.07 mm thick CRCA MS & drawer tray of 0.5+/-0.07 mm thick CRCA

MS & drawe front of 0.8+/-0.1 mm thick CRCA MS & the drawer friction slide shall have 1.2 mm thick CRCA MS & lock shall be of 10 lever cam lock. Handles shall be built in plastic.All Fabricated parts which require welding are MIG / Spot welded. The Screw joining Wooden Panels to under structure are Chip Board Screws. All steel structural components shall be made from virgin and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth. Top Understructure size shall be 1165mm(W) X 558mm(D).



Steel Office Chair

The seat and back are made from seasoned wood, caned and finished with synthetic paint (Colour: Black). BACK SIZE: 38.1CM(W) X 39.0CM(H). SEAT SIZE: 38.1cm(W) x 42.4cm(D). The cane is produced from blends of High and Low Density polyethylene. The cane high tensile strength at break=1400 kg/cm2(min.) & Elongation at break=54% maximum. The understructure assembly is a cantilever type frame made of dia. 2.54+/-0.03cm x0.2+/-0.016cm thick M.S. E.R.W. tube and powder coated. (DFT 40-60 microns). Wood used in the manufacturing of seat and back should be free from defects, termite free and after caning should bear a load of 130KG in fitted position. Also there should be no permanent deformation or structural change in the frame structre on apply of this load. At the bottom of frame lugs should be press fitted in punched holes in the frame structure. All steel structural components shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth.



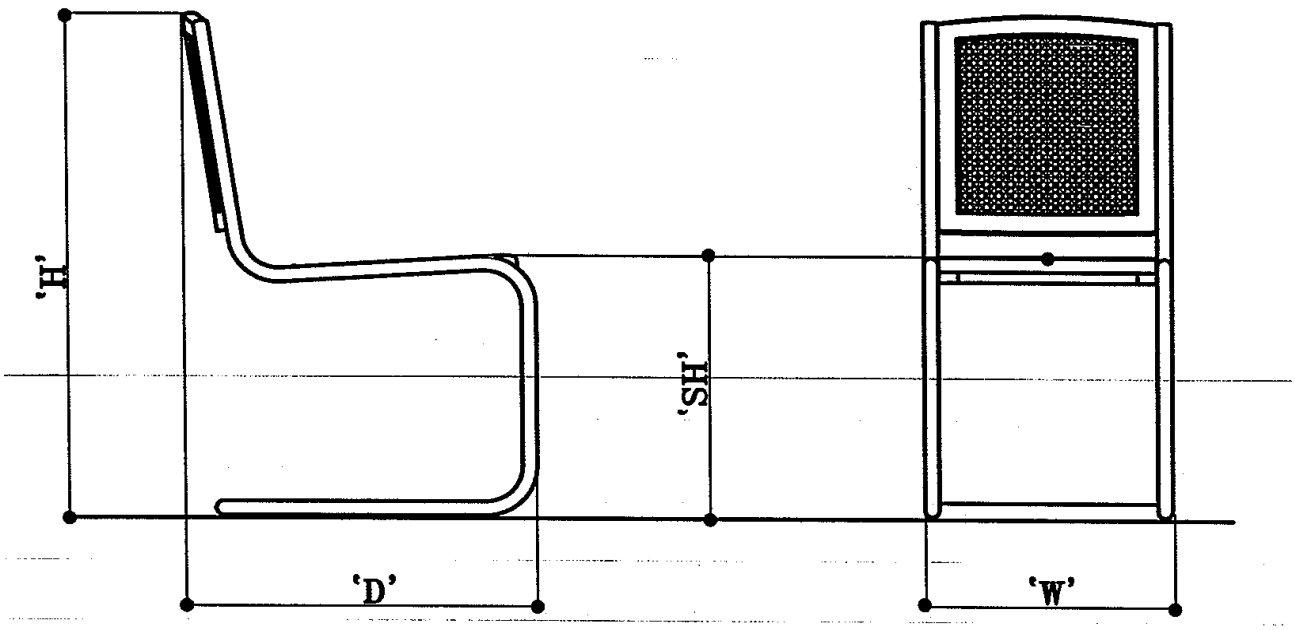
WIDTH(W): 43.1 CM.
DEPTH(D): 57.5 CM.
HEIGHT(H): 88.0 CM.
SEAT HEIGHT(SH): 45.0 CM.

THESE DIMENSIONS ARE PRODUCT OUT TO OUT DIMENSION & VARIATION WITHIN ±1.0 CM ARE NORMAL.

Office Visitor Chair

The seat and back are made from seasoned wood, caned and finished with synthetic paint (Colour: Black). BACK SIZE: 38.1CM(W) X 39.0CM(H). SEAT SIZE: 38.1cm(W) x 42.4cm(D). The cane is produced from blends of High and Low Density polyethylene. The cane high tensile strength at break=1400 kg/cm2(min.) & Elongation at break=54% maximum. The understructure assembly is a cantilever type frame made of dia. 2.54+/-0.03cm x0.2+/-0.016cm thick M.S. E.R.W. tube and powder coated. (DFT 40-60 microns). Wood used in the manufacturing of seat and back should be free from defects, termite free and after caning should bear a load of 130KG in fitted position. Also there should be no permanent deformation or structural change in the frame structre on apply of this load. At the bottom of frame lugs should be press fitted in punched holes in the frame structure. All steel structural components shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house

in fully automated powder coating booth.

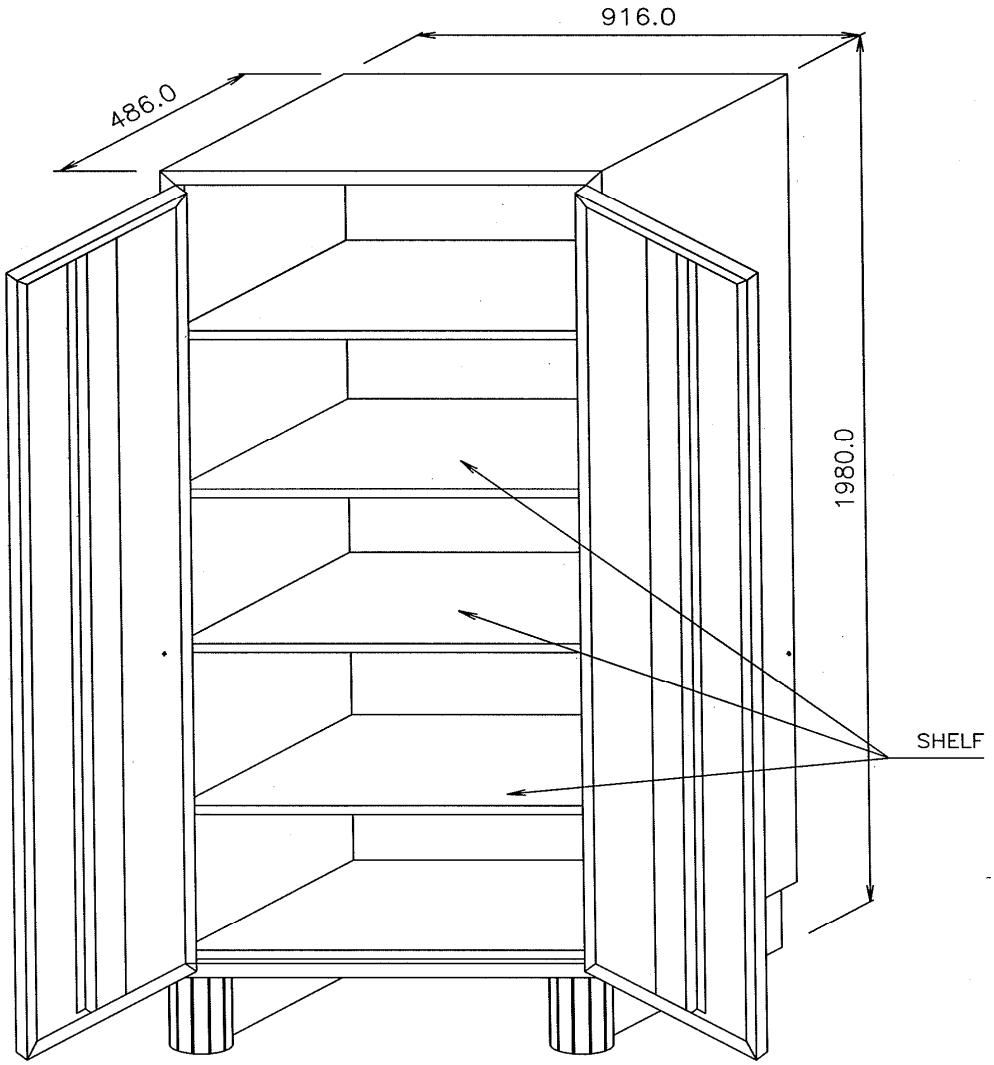


WIDTH(W): 43.1 CM.
DEPTH(D): 57.5 CM.
HEIGHT(H): 88.0 CM.
SEAT HEIGHT(SH): 45.0 CM.

THESE DIMENSIONS ARE PRODUCT OUT TO OUT DIMENSION & VARIATION WITHIN ±1.0 CM ARE NORMAL.

Steel Shelving Cabinet

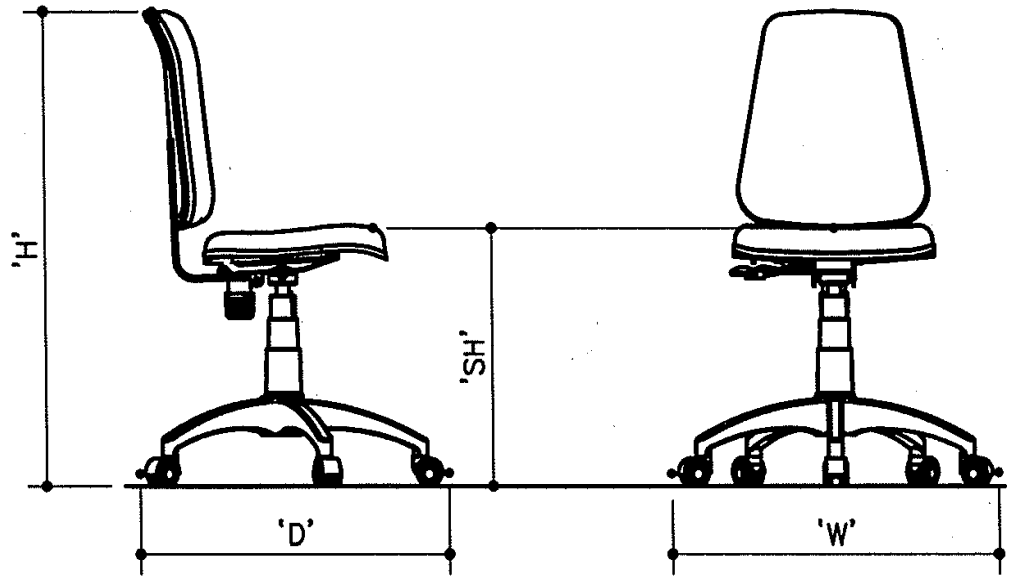
Almirah Size shall be 916 mm (W) x 486 mm (D) x 1981 mm (H) Excluding levellers. It shall made of 0.7 mm thk(+/-0.07mm)* CRCA for Shelf, 0.8 mm thk(+/-0.08mm)** High yield strength CRCA for doors and back & 0.9 mm thk(+/-0.08mm)* CRCA for all other components. Construction shall be welded construction. *CRCA 'D' grade as per IS:513. **CRCA 'D' grade high yield strength as per IS:513. Full height Steel Hinged Door shall be provided. Mazak Handle shall be provided having 3 way locking mechanism with shooting bolt arrangement. Height wise 4 nos of Adjustable Shelf shall be provided with Uniformly Distributed Load Capacity per each full shelf is 40 Kg maximum. M10 Screw type leveler with hex plastic base. Outer Finish shall be Epoxy Polyester Powder coated to the thickness of 50 microns (+/-10).). Almirah Size shall be 916 mm (W) x 486 mm (D) x 1980 mm (H) Excluding levellers. It shall made of 0.7 mm thk(+/-0.07mm)* CRCA for Shelf, 0.8 mm thk(+/-0.08mm)** High yield strength CRCA for doors and back & 0.9 mm thk(+/-0.08mm)* CRCA for all other components. Construction shall be welded construction. *CRCA 'D' grade as per IS:513. **CRCA 'D' grade high yield strength as per IS:513. Construction shall be welded construction. Locking and Handle – Brass handle, Two way locking mechanism with shooting bolt. Height wise 4 nos of Adjustable Shelf shall be provided with Uniformly Distributed Load Capacity per each full shelf is 40 Kg maximum. M10 Screw type leveler with hex plastic base. Outer Finish shall be Epoxy Polyester Powder coated to the thickness of 50 microns (+/-10).). All steel structural components shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth.



*OVERALL ASSEMBLY DIMENSION MAY VARY ±5mm

Adjustable Computer Chair

The seat and back are made up of 1.2 cm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC lipping all around. The back foam is designed with contoured lumbar support for extra comfort.(MID BACK) SIZE: 40.0cm. (W) X 45.0cm. (H)SEAT SIZE: 43.0cm. (W) X 39.0cm. (D). The HR Polyurethane foam is moulded with density = 45 +/-2 kg/m cube and hardness load 16+/-2 kgf as per IS:7888 for 25% compression. The permanent contact mechanism is designed with 360° revolving type.14° maximum back-tilt only.Upright position locking.Tilt tension adjustment. The pneumatic height adjustment has an adjustment stroke of 12.0 cm.The bellow is 3 piece telescopic type and injection moulded in black Polypropylene. The pedestal is injection moulded in black 30% glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 61.0cm. pitch-center dia. (71.0 cm with castors).The twin wheel castors are injection moulded in Black Nylon. Pedestal should withstand load of 11120N(2500lbf) for one minute when applied vertically at center. Castors should withstand a load of 102 Kg(225lb) for 2000 cycles with obstracles and 98000 cycles without obstacles at 8-12 cycles per minute. Back of Chair should withstand repeated pull push load of 34Kg applied at vertical center line for 120000 cycles at the rate of 10-30 cycles per minute keeping the chair in fixed position and putting a load of 102Kg on seat. Seat of chair should withstand a load of 102Kg(225lb) in the form of a bag of dia 400mm(16 inch) when dropped a height of 152mm(6 Inch).

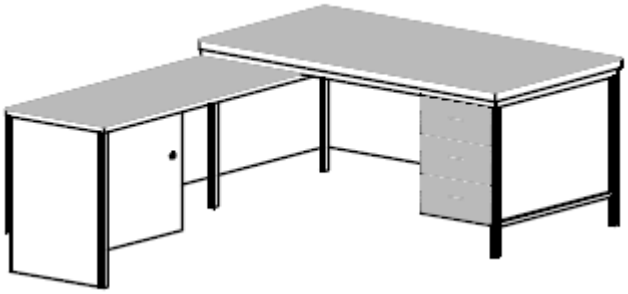


WIDTH (W):	71.0 CM.
DEPTH (D):	71.0 CM.
HEIGHT (H):	86.0 - 98.0 CM.
SEAT HEIGHT (SH):	42.0 - 54.0 CM.

THESE DIMENSIONS ARE PRODUCT OUT TO OUT DIMENSIONS & VARIATIONS WITHIN ±1.0 CM. ARE NORMAL

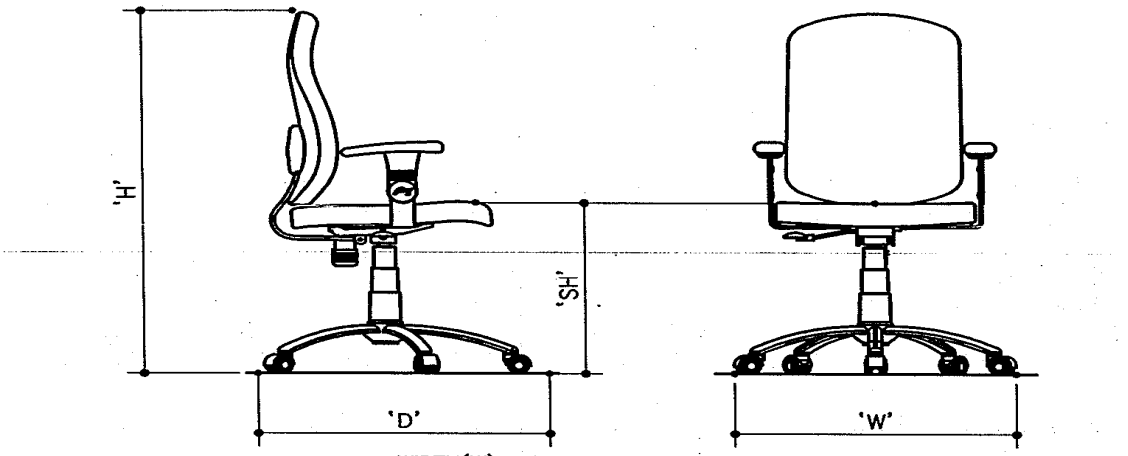
Principal Table

The work surfaces are made up of 1665X900X25 ± 0.5mm Thick Pre laminated Board as per IS -12823 with 2mm thk PVC edge Banding on all Sides . The tubular Frame is made of MS ERW Square tube , 30±0.3mm X 30 ±o.3mm X1.6±0.128mm Thick as per IS-7138. The Side Fronts and Back Panels are made up of 18+o.5mm thk Pre- Laminated boards as per IS -12823 with 2mm thk PVC edge banding on all sides. The front Support Tube is made up of MS ERW Tube of 32±0.3mmX19±0.3mm X1.6±0.128mm Thick as per IS -7138. The over-all dimensions of Desk Pedestal are 430WX730DX536H. The Desk Pedestal is a combination of Pre Laminated Panels and MS Sheets . The Slides on which Drawers are mounted are roller Slides. The Over-all Dimensions of ERU Storage (consisting of Hinge Door unit with Shelf) is 341W X 402D X 493 H. The Tubes are closed with the plastic Bushes at the end. All steel structural components are processed shall be made from virgin material sourced from SAIL/Tata Steel/Jindals or equivalent manufacturer and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. The powder coating shall be carried out in-house on powder coating booth. The powder coated components are on regular basis tested for Scratch resistance test of 4 kgs & for Impact resistance test for 150kgs/cm. All steel structural components shall be made from virgin material and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth.



Principal Chair

The seat and back are made up of 1.2 cm thick hot-pressed plywood measured and upholstered with changeable fabric upholstery covers and moulded Polyurethane foam together with moulded back spine cover. Back size: 42.0cm(W)x60.0cm(H). Seat Size: 47.0 cm(W)x50.0cm (D).The HR Polyurethane foam is moulded with density=45+/-2 kg/m cube and hardness load 16+/-2 kgf as per IS:7888 for 25% compression. Armrest – The armrest shall made of black integral skin polyurethane with 50-70 shore'A' hardness and reinforced with M.S. Insert. The P.U. Armrests are then fixed to black powder coated(40-60 microns) armrest brackts made of 0.5 +/-0.05cm thk. HR steel and fitted with cladding made of injection moulded polypropylene. The chair has permanent contact mechanism is 360 degree revolving type, 14°+/-2° maximum back tilt only, upright position locking, Tilt tension adjustment. The spine cover is injection moulded in black co-polymer polypropylene. The pneumatic height adjustment has an adjustment stroke of 12+/-0.3cm. The bellow is 3 Piece telescopic type and injection moulded in black polypropylene. The pedestal is fabricated from 0.2 +/-0.02cm thick HR sheet(IS:DD 1079/HR), powder coated(DFT 40-60 microns) and fitted with an injection moulded black polupropylene hub cap and 5 nos twin wheel castors. The pedestal is 60.0+/-0.5cm pitch centre dia(70.0+/-1.0cm with castors). The twin wheel castors are injection moulded in black nylon.Pedestal should withstand load of 11120N(2500lbf) for one minute when applied vertically at center. Castors should withstand a load of 102 Kg(225lb) for 2000 cycles with obstracles and 98000 cycles without obstacles at 8-12 cycles per minute. Back of Chair should withstand repeated pull push load of 34Kg applied at vertical center line for 120000 cycles at the rate of 10-30 cycles per minute keeping the chair in fixed position and putting a load of 102Kg on seat. Seat of chair should withstand a load of 102Kg(225lb) in the form of a bag of dia 400mm(16 inch) when dropped a height of 152mm(6 Inch).

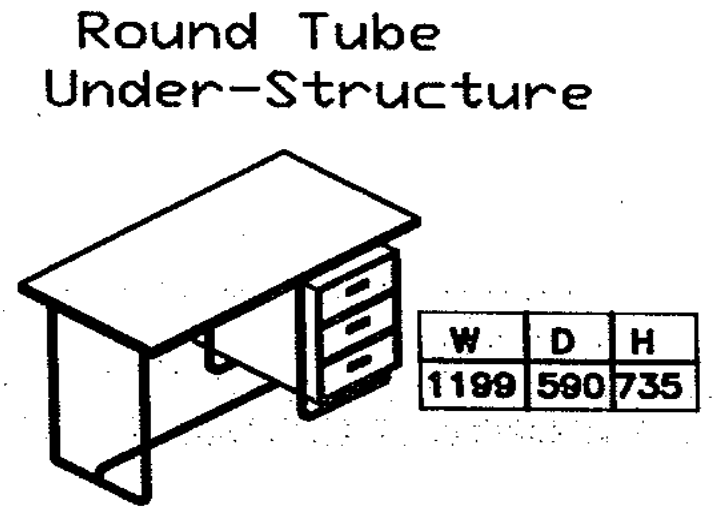


WIDTH(W): 70.0 CM.
DEPTH(D): 70.0 CM.
HEIGHT(H): 100.0–112.0 CM.
SEAT HEIGHT(SH): 41.5–53.5 CM.

THESE DIMENSIONS ARE PRODUCT OUT TO OUT DIMENSIONS & VARIATIONS WITHIN ±1.0 CM. ARE NORMAL

Modular Table for Staff

The table shall have 1199 (w) X 590 (d) X 750 (H). The worksurface of the table shall be 18 +/- 0.5mm thick Pre Laminated Board top as per IS -12823 with 2mm thick PVC edge beading on all sides. The understurcture shall be C frame of 0.9+/-0.09 mm thick powder coated 50 microns(+/-10) CRCA MS. The tubular frame shall be of dia. 25.4+/-0.3mm X 1.2+/-0.096mm thick MS ERW round tubes. It shall have 3 drawer unit & shall be 355.5mm W X 559mm D X 433.5mm H, with shell of 0.5+/-0.07 mm thick CRCA MS & drawer tray of 0.5+/-0.07 mm thick CRCA MS & drawe front of 0.8+/-0.1 mm thick CRCA MS & the drawer friction slide shall have 1.2 mm thick CRCA MS & lock shall be of 10 lever cam lock. Handles shall be built in plastic.All Fabricated parts which require welding are MIG / Spot welded. The Screw joining Wooden Panels to under structure are Chip Board Screws. All steel structural components shall be made from virgin and tested conforming to IS: 513/ IS: 10748/ IS: 2062/ IS: 7138. Recycled steel will not be accepted. The powder coating shall be carried out in-house in fully automated powder coating booth. Top Understructure size shall be 1165mm(W) X 558mm(D).



Writing Board

Size 1200 x 2400 mm,

The writing top surface shall be made of steel sheet of thickness 0.3 to 0.4mm and shall have vitreous enamel coating of 0.11mm min thickness on top and 0.03mm min on the back. The top shall be free from waviness and shall show no scratches when HB to 3H pencils are used for writing. The surface shall show excellent erasability when the specified writing medium is used. It should be possible to fully erase the marking of permanent marker pens using methanol.

Green Board

The writing top surface shall be made of steel sheet of thickness 0.3 to 0.4 mm, it shall have vitreous enamel coating of 0.095 mm min thickness on top and 0.03 mm min on the back. The top shall be free from waviness and shall show excellent erasability. colour : Green (size 1200 mm x 2400 mm)

Writing Board

Size 900 x 1200 mm,

The writing top surface shall be made of steel sheet of thickness 0.3 to 0.4 mm and shall have vitreous enamel coating of 0.11 mm min thickness on top and 0.03 mm min on the back. The top shall be free from waviness and shall show no scratches when HB to 3H pencils are used for writing. The surface shall show excellent erasability when the specified writing medium is used. It should be possible to fully erase the marking of permanent marker pens using methanol.