







Mam....yeh answer sheet hamarey poore saal ki mehnat hai, issay pankha mat banaiye Havells Energy Saving Fans... Saves 40% Energy

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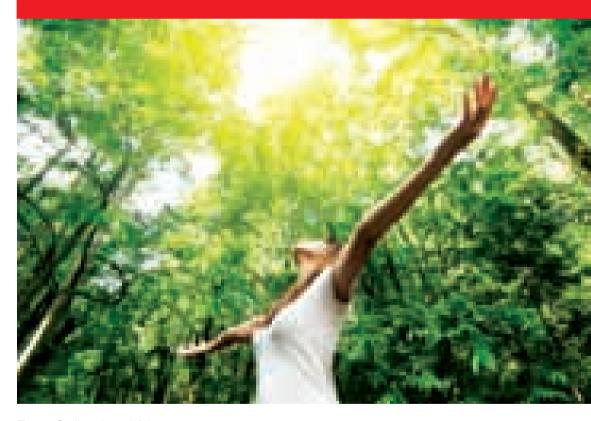
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ZFC000001/July′11



Ultimate aaram



Fans Collection 2011





Due to continuous technology upgradation the design, specifications & colour combinations may vary without notice. The colour shade of the fan shown may differ from the actual fan colour due to printing limitations.

Join us on Facebook at www.facebook.com/havells and share your ways to save the planet!





Welcome to the world of Havells India Limited, the largest and India's fastest growing $electrical \, and \, power \, distribution \, equipment \, manufacturer \, with \, a \, strong \, global \, footprint.$

With a total turnover exceeding billion-plus dollars, Havells enjoy enviable market dominance across a wide spectrum of products and services, including Industrial & Domestic Circuit Protection Switchgear, Cables & Wires, Motors, Fans, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial & Industrial applications, Modular Switches covering the entire gamut of household, commercial and industrial electrical

Havells entered the Fan business in mid-2003 and soon, with its constant quest for innovation and customer satisfaction, became an enviable competitor and a player, revered for capturing strong market through its wide range of pioneering designs.

From premium fans in exquisite antique finishes to fans specially designed for kids to dual colour fans and super speed fans, Havells today offers a complete range to meet varied individual needs. Further, it won industry accolades on launch of Havells ES – 50, which was indigenously designed by Havells R&D team and was India's first energy efficient fan, consuming only 50W of electricity. Today, this model is amongst the largest selling energy saving fans in

Havells today can claim for installing India's most modern and integrated manufacturing plant for fans in the country. Located at industrial area of Hardwar, Uttrakhand – the plant has an annual manufacturing capacity of more than 5 million fans and is equipped with state-of-the-art technology including automated CNC machines for motor winding, CNC machines for end covers machining , state of the art conveyorised painting plant with electrostatic painting systems & conveyorised assembly lines complete with computerised testing facilities.

The brand has just further augmented its manufacturing capacity by adding a second unit to the plant – which is further equipped with automated processes - matching with the best in the world. Some of the highlights include:

- 1. The plant has the most modern & best internationally available CNC machine for stator winding backed up by hi-tech microprocessor based testing equipments with stator impregnation through integrated conveyorised system ensures zero defect product.
- 2. Further it is equipped with Hi-precision CNC machines for machining of rotors & end covers. The end covers & blades are painted in the ultra modern paint shop with state of the art technology in eco friendly environment to generate the consistent superb quality & gloss in flawless condition.
- 3. It also has the most advanced fully automatic system, no where else available in fan industry in India, for testing electrical parameters as well as air delivery of fans in a sound proof room, devoid of human judgement, to ensure right

quality for zero defect.

4. The entire manufacturing process is conveyorised to ensure minimal handling & human intervention

Backed with the power of these manufacturing units, which are spread across 11 acres of space and can together manufacture around 4 lac fans per month – Havells is striving to further strengthen its position in this industry, not only in domestic markets but also wowing customers worldwide by delivering products and innovations which are better, safer and smarter to match the new

So come, and let the wide range of Havells Fans style a new-generation home for you and complement your luxurious lifestyle.



- Fully integrated State-of-art pre-treatment system & paint
- PLC controlled time cycle for transporter movement during pre-treatment process in each tank
- Nano technology solutions used for pre-treatment. Environmental, pollution free chemicals used in system
- PLC controlled paint system monitoring, reciprocator
- movement, bell applicator for paint, conveyor speed etc LPG operated ovens for baking ensures high heat transfer



- Conveyorised motor & blade assembly lines, ensure single piece flow, consistantly high productivity
- Assembly process equipped for manufacturing 2.0 lac fans
- Each stage of assembly is equipped with latest technology machines & mechanism
- Automation in online packing with latest technology machines for accuracy & productivity



- Gangways / Passages are wide and clearly
- demarcated for easy / free movement of materials Palletized stacking & material movement for
- components& finished goods
- Work station rgonomically designed for ease of
- Minimum manual handling

- State-of-the art winding process using CNC
- programmed winding machines Compact & layered coils
- Hi tech microprocessor based testing equipments ensure long life of motor winding
- Integrated conveyorised system for pre-heating, varnishing & baking of stator. LPG oven ensure uniform baking and pollution free environment
- Excellent quality "Six Sigma"



- CNC machining centre, double ended, specially tooled--up for motor end covers and rotor
- High Precision accuracy & consistency in
- machining system, ensures zero defect
- On line gauging with automation for monitoring
- Higher productivity

- Latest technology testing equipments & systems used in process quality assurance
- Modern testing facilities for 100 % motor & blade verification before packing Internal product audit system at each stage of manufacturing to enhance customer delight
- Fully integrated automation system air delivery measurement for ceiling fans Most modern CNC controlled testing panel to ensure quality and
- performance of each fan for all required parameters in an acoustic controlled environment Incoming, Inprocess & finished product quality assurance
- done by a team of qualified & dedicated professionals

Testing & Quality control







Selection Guide-Ceiling Fans Recommended sweep for different room sizes:

Room size	Fan sweep
For small shops, cabins & low ceiling	600 mm(24")
2.4 mtr x 2.7 mtr to 2.4 mtr x 2.4 mtr (8' x 10') to (8'x8') upto 6.5 sq. mtr	900 mm(36")
2.7 mtr x 3.3 mtr to 3 mtr x 3 mtr (9' x 11') to (10'x10') upto 9 sq. mtr	1050 mm(42")
3.3 mtr x 4 mtr to 3.7 mtr x 3.7 mtr (10' x 13') to (12'x12') upto 14 sq. mtr	1200 mm(48")
4 mtr x 5 mtr to 4.5 mtr x 4.5 mtr (13' x 16') to (15'x15') upto 20 sq. mtr	1400 mm(56")

To optimize the air delivery, ceiling fan should be approximately 10 feet from the ground level and 1 feet below the ceiling.

For larger room with more than one fan, the centre distance between each fan would vary with the sweep/size of the fan as below:

Sweep of fan	1400 mm	1200 mm	1050 mm	900 mm
Centre distance	3 m	2.5 m	2 m	1.8 m













- Remote control for on/off, speed & light
- Five blades made of high quality wood
- Powerful motor with silent operation
- Sweep 1320 mm



With roversible blad





- Finish suiting modern interiors of house wood furniture
- 4 blade special finish with provision for underlight kit
- Decorative die cast shank
- Motor body, down rod, canopy & shank in plated finish
- Available in two plating finishes Satin Gold & Brushed Nickel
- Improved performance even at low voltage
- Sweep 1320 mm





- Finish suiting modern interiors of house wood furniture
- 4 blade special finish
- Decorative die cast shank
- Down rod
- Improved performance even at low voltage
- Transparent motor cover
- Sweep 1200 mm



Special Finish Fans

- Four blades for wider air delivery
- Double ball bearing super silent motor
- Perfectly streamlined body
- Sweep 1320 mm











- Special plated finish
- Powerful motor
- Wider blades for effective air circulation
- Decorative ring on motor cover
- Optimum performance even at low voltage
- Double ball bearings
- Sweep 1200 mm





Orion

- Electro-phoretic lacquered surface for anti rusting
- High speed fan
- Wider tip blade for effective air circulation
- Optimum performance even at low voltage
- Sweep 1200 mm







Special Finish Fans Special wood texture Powerful motor



- Wider tip blades for effective air circulation
- Decorative ring on motor cover
- Optimum performance even at low voltage
- Double ball bearings
- Sweep 1200 mm



HAVELLS







3		
Parameters	ES-5 Fans	★ Ordinary
Rated Wattage	50W"	75W "
Power Consumption @ 16 hrs/day	800W	1200W
Total unit of electricity/month	24 units	36 units
Cost of Electricity/ Month @ Rs. 5/- unit**	₹120.00	₹180.00

Sweep	Power Input	Speed	Air Delivery	Service Value
(mm)	(Watts)	(RPM)	(CMM)	CMM/W)
1200	50	350	225	4.20

* Actual saving depends on fan usage & cost of electricity * Data pertains to 1200 mm sweep. Wattage may vary \pm 5 % ** May vary from state to state







HAVELLS



Full Interpretation of the Interpretation of













Parameters	ES-5 Fans	★ Ordinary
Rated Wattage	50 W*	75W"
Power Consumption @ 16 hrs/day	800W	1200W
Total unit of electricity/month	24 units	36 units
Cost of Electricity/ Month @ Rs. 5/- unit**	₹120.00	₹ 180.00

eep	Power Input	Speed	Air Delivery	Service Value
n)	(Watts)	(RPM)	(CMM)	CMM/W)
200	50	350	225	4.20

^{*} Actual saving depends on fan usage & cost of electricity

Data pertains to 1200 mm sweep. Wattage may vary ± 5 %

** May vary from state to state





Wider tip blades for effective air circulation

Sweep (mm)Power Input (Watts)Speed (RPM)Air Delivery (CMM)120070350230

HAVELLS

Decorative Fans Matt Beige Brown Unique conical shape design –motor body and canopy Wider blade for higher air delivery Decorative ring and canopy with special matte paint finish Double ball bearings Improved performance at low voltage Pressure die casted aluminium covers & aluminium blades 900 & 1400 mm available in selected colours 1200 mm available in 4 colours

Decorative Fans





- Metallic paint finish
- Decorative trims on motor cover, canopy & blades
- Optimum performance even at low voltage
- Double ball bearings

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMM)
600	62	880	120
900	60	420	170
1050	62	400	190
1200	70	350	230
1400	75	300	280





Silver Blue 600, 900, 1050, 1200 & 1400 mm sweeps



Oasis Green 1200 mm sweep



Pearl White 600, 900, 1050, 1200 & 1400 mm sweeps Also available in golden trims



Wine Red 1200 mm sweep



Pearl Ivory 600, 900, 1050, 1200 & 1400 mm sweeps



Silver Blue 1200 mm sweep Also available in Beige Brown & Pearl Ivory

Decorative Fans



Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	68	350	

HAVELLS

Decorative Fams Ocean Blue



- Unique blade design
- Motor with decorative ring
- Optimum performance even at low voltage
- Decorative trims on blades & canopy
- Double ball bearings

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMM)
1200	70	350	230
1400	75	300	280

Also available in 900 & 1050 mm









Decorative Fans





- Excellent and long lasting paint finish
- New design trim & decorative canopy set
- High efficiency motor with double ball bearings
- Optimum performance even at low voltage
- Pressure die casted aluminium covers & aluminium blades

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	68	350	









- Decorative trims on blades & canopy
- Wider tip blades for effective air circulation
- Double ball bearings

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMM)		
1200	68	350	225		



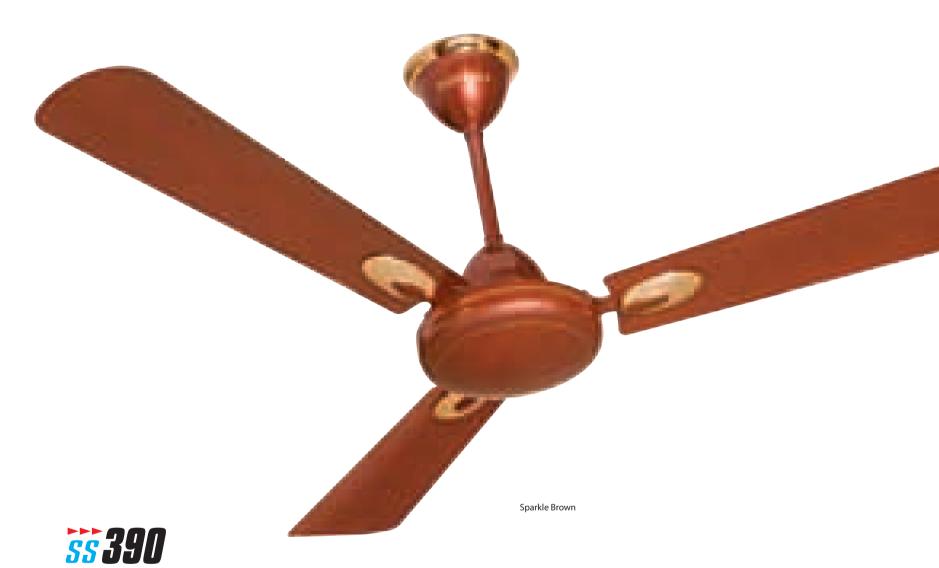






HAVELLS

Decorative Fans



- Optimum performance even at low voltage
- Decorative trims on blades & canopy

DECO

- Wider tip blades for effective air circulation
- Double ball bearings
- High speed fan
- Also available in Careena Copper & Black

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	72	400	235

Also available in 1050 & 1400mm







- Three coat metallic paint system to enrich the gloss
- High speed fan
- Wider tip blades for effective air circulation
- Optimum performance even at low voltage
- Also available in Pearl White

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	72	400	235

Also available in 900 & 1050 mm

Sparkle Brown







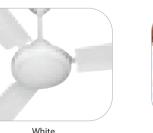




- High speed fan
- Wider tip blades for effective air circulation
- Excellent & long lasting paint finish
- Optimum performance even at low voltage
- Double ball bearings
- Also available in Brown colour

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMM)
900	60	420	170
1050	62	400	190
1200	72	400	235
1400	80	330	290







HAVELLS







- High speed fan
- Double ball bearings
- Excellent & long lasting paint finish

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	72	400	235

Also available in 900, 1050 & 1400 mm







HAVELLS

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
1200	68	350	225

Also available in 900, 1050 & 1400 mm





- New design trim & decorative canopy set
- High efficiency motor with double ball bearings
- Pressure die casted aluminium covers & aluminium blades
- Sweep 1200 mm

Sweep	Power Input	Speed	Air Deliver
(mm)	(Watts)	(RPM)	(CMM)
1200	68	350	



Vhite

HAVELLS





- Brown
- 600 & 750 mm sweeps
- Also available in White & Ivory





- Silver Blue
- 600 mm sweep
- Also available in Beige Brown, Pearl Ivory & Pearl White Silver





velocity

- Brown
- 600 & 750 mm sweeps
- Also available in White & Ivory

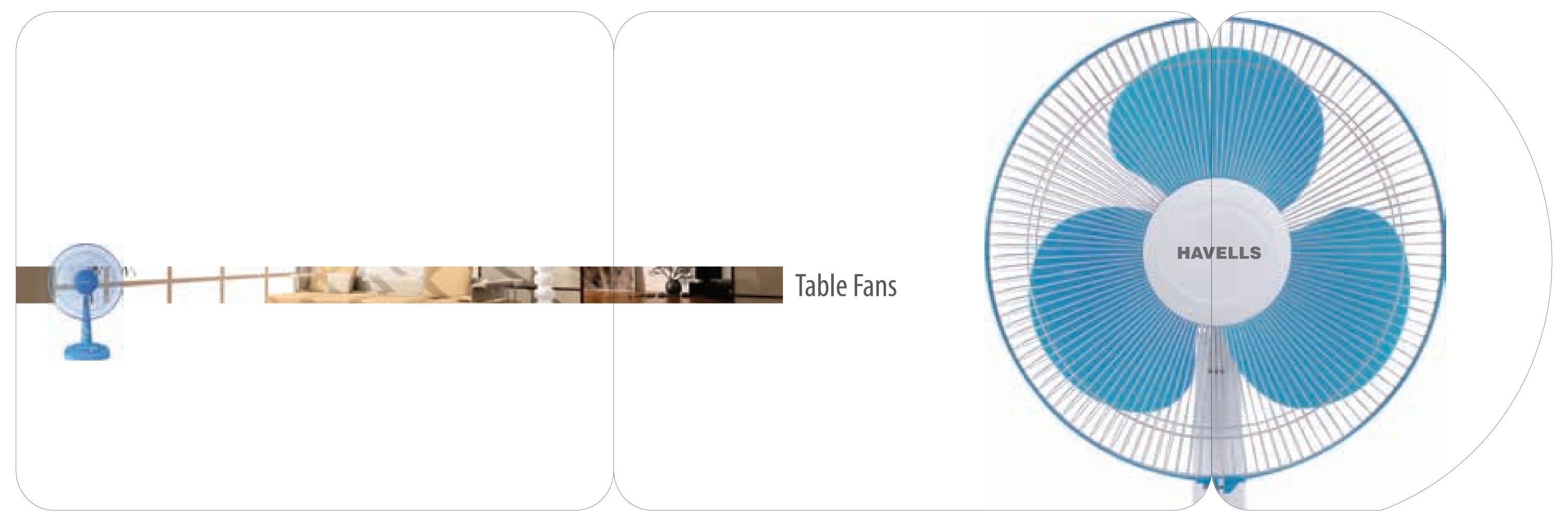


Available against specific indent Sleek/stylish look

Fan Regulator

- 5 speed & 1 off rotary control

- Brown
- 600 & 750 mm sweeps
- Also available in White & Ivory







birde

section for maximum air efficiency

Elegant spiral mesh guard with guard ring adorned with show

Multiuse fan suitable for use as desk, wall or cabin / deck

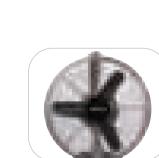
Sweep Power Input Speed Air Delivery (mm) (Watts) (RPM) (CMM) 230 55 2800 38

in horizontal & vertical plane

cap gives a touch of grace

mounted application

Personal Fans



HAVELLS

Personal Fans



- Jerk free revolving grill for wider spread of air
- Dual purpose use viz table / wall mounting
- 3 Speed operation & 2 hrs. timer
- Full 180° fan head movement Automatic power cut against accidental fall

Cres Cent Personal fan

- Sun moon shape for attractive look

Sweep	Power Input	Speed	Air Deliv
(mm)	(Watts)	(RPM)	(CMM
250	38	1350	









MARKELLE.

1.790



- High performance motor for better air delivery
- Jerk free oscillation & smooth running
- Superior low voltage performance

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	









HAVELLS



Swing Lx

Table Fans

- Jerk free oscillation
- 120 ribs guard
- Pivot arrangement for tilting & oscillation
- Aerodynamically designed & balanced PP blades
- Available in 3 attractive colour combinations

veep	Power Input	Speed	Air Delivery
im)	(Watts)	(RPM)	(CMM)
00	55	1350	72

Table Fans

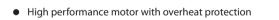
HAVELLS





Table Fans





- Jerk free oscillation
- Aerodynamically designed heavy duty pp blades
- Pivot arrangement for tilting & oscillation
- World class styling & finish

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	110	2100	90



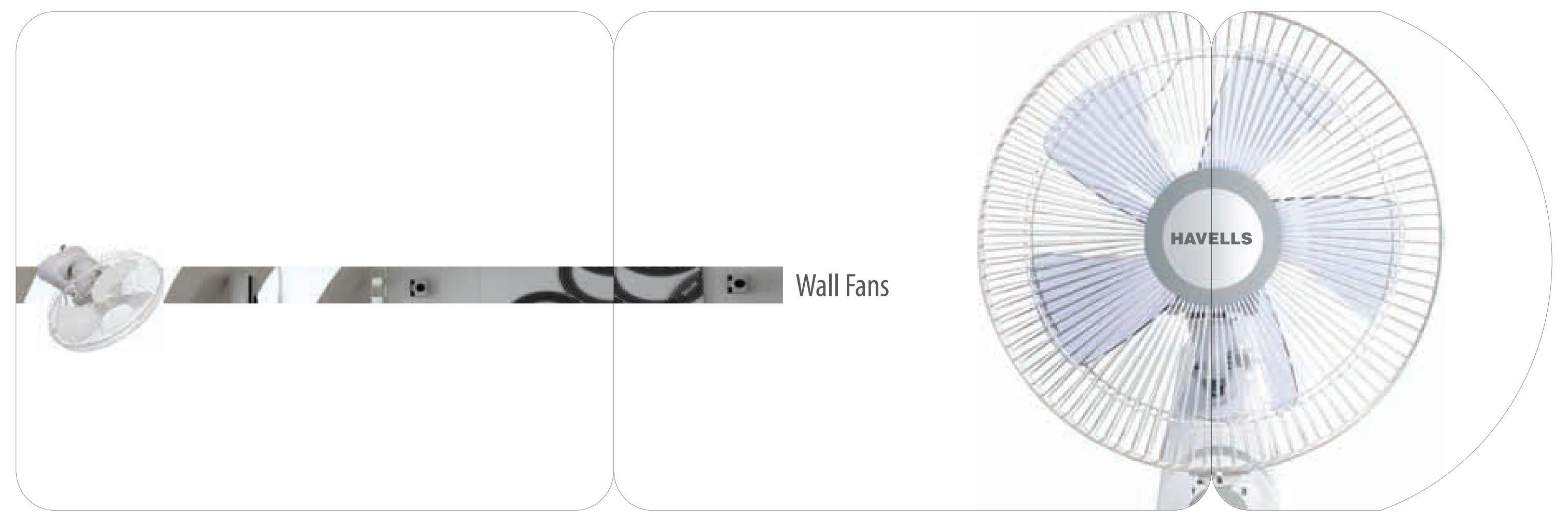






- Jerk free revolving grill for wider spread of air
- Available in three attractive colour combination
- Taller to give enhanced aesthetic appeal
- Available in 3 attractive colour combinations
- Sweep Power Input Speed Air Delivery (mm) (Watts) (RPM) (CMM) 400 55 1350 72

HAVELLS





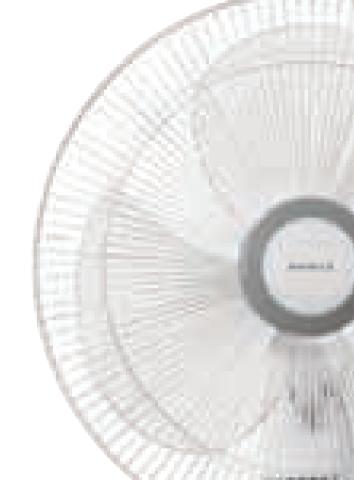
MARKELLA



- 5 Leaf Transparent AS blade
- Elegant Styling & attractive look
- Pull cord control for speed & oscillation

Sweep	Power Input	Speed	Air Delive
(mm)	(Watts)	(RPM)	(CMM)
300	50	1350	50



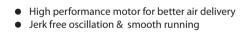




- High performance motor for better air delivery
- Jerk free oscillation & smooth running
- Aerodynamically designed & balanced blades
- Super low voltage performance

Sweep	Power Input	Speed	Air Delive
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	





SWING Platina

HAVELLS

Aerodynamically designed balanced

Superior low voltage performance

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	72

Wall Mounting Fans



HAVELLS

Swing Premia

- High quality ABS base120 ribs guardPull cord control for speed & oscillation

reep	Power Input	Speed	Air Delivery
m)	(Watts)	(RPM)	(CMM)
00	55	1350	72

HAVELLS

- Swing
- Elegantly designed fan base
- 120 ribs guard
- Pull cord control for speed & oscillation
- Aerodynamically designed balanced blades

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	



HAVELLS

- Pull cord control for speed & oscillation Superior air delivery & air blast
- AS transparent 3 leaf blade

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	72

HAVELLS

World class styling & finish

Sweep Power Input Speed Air Delivery (mm) (Watts) (RPM) (CMM) 400 55 1350 72



Wall Mounting Fans

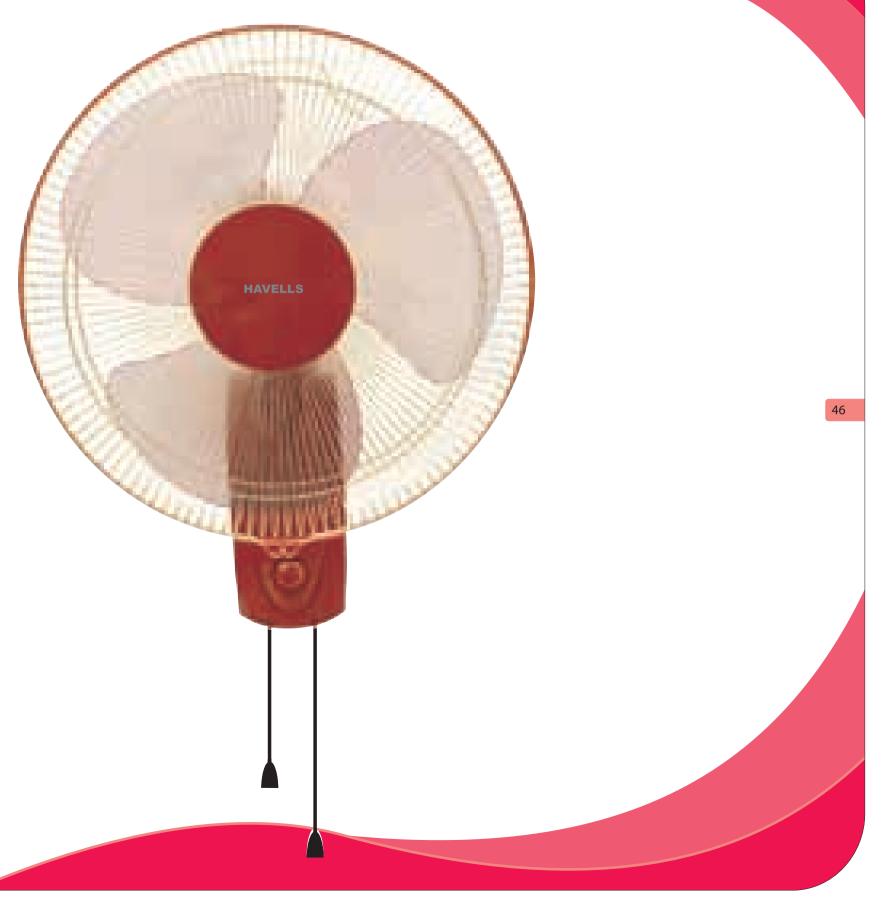
Wall Mounting Fans



- High quality ABS base with wood finish
- 120 ribs golden plated guard

HAVELLS

- Pull cord control for speed & oscillation On-Off
- Aerodynamically designed & balanced AS blades



Close mesh guard with 120 spokes

450 100 1400 110

delivery & superior air blast

Sturdy & heavy duty blades for higher air Attractive black chrome colour combination Pull chain arrangement for speed control 85° oscillation & provision for tilting up & down Sweep Power Input Speed Air Delivery (Mm) (Watts) (RPM) (CMM)

Wall Mounting Fans

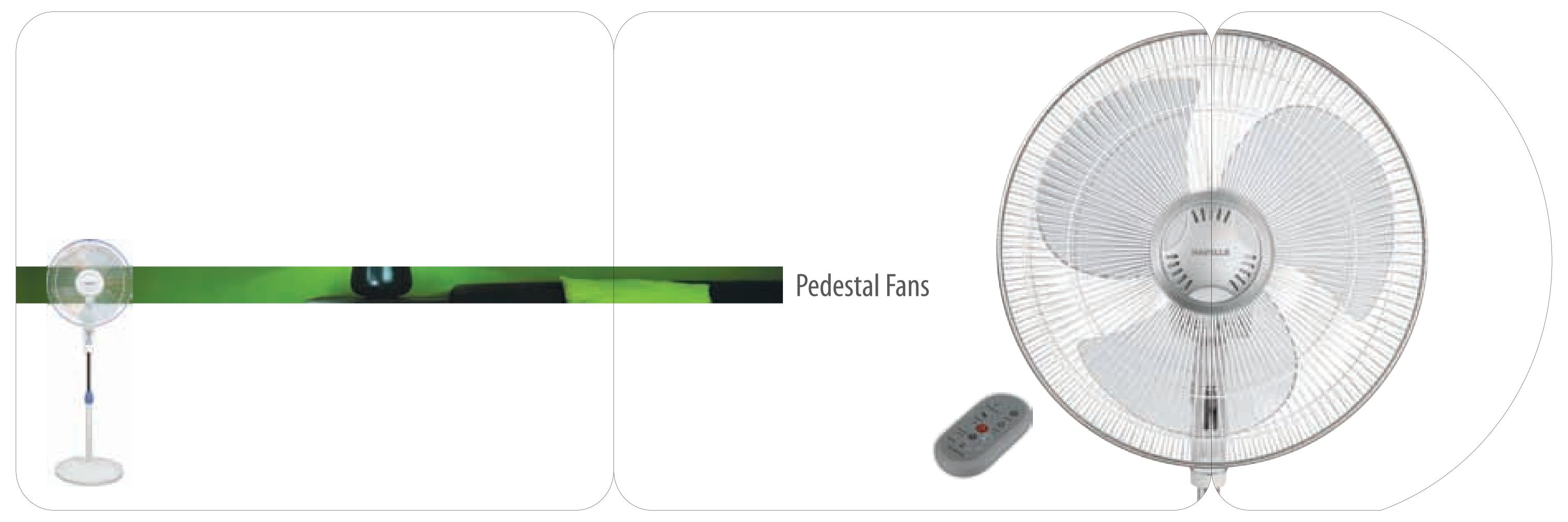
Ceiling Mounted Fans

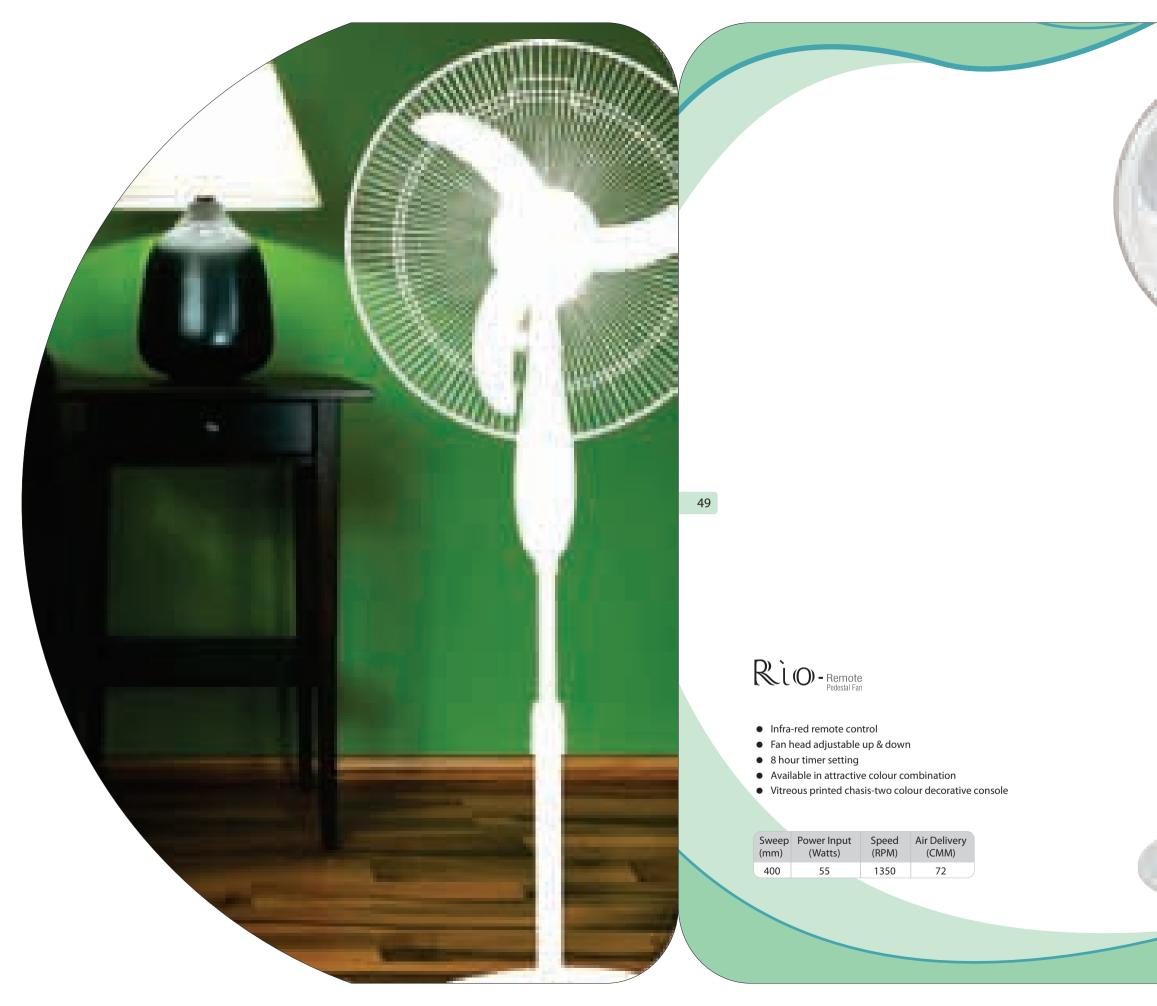




- (360°) gyroscopic movement/adjustable wind direction
- Grill for protection
- 3 Speed control by regulator
- Ideal for mounting on low height ceiling
- Aerodynamically designed balanced ABS blades

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	58	1330	72





Pedestal Fans

Pedestal Fans



- Elegantly designed switch box
- Control of power On-Off, speed modes, oscillation
 & timer functions through remote also
- Aerodynamically designed balanced 3 leaf blade

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	

HAVELLS



Pedestal Fans

Pedestal Fans



- Elegantly designed switch box
- Control of power On-Off, speed modes, oscillation & timer functions through remote also
- Aerodynamically designed balanced 3 leaf blade

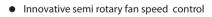
Sweep	Power Input	Speed	Air Delivery
mm)	(Watts)	(RPM)	(CMM)
400	55	1350	72

HAVELLS

HAVELLS







Available in attractive colour combination

Elegant styling

Sweep	Power Input	Speed	Air Deliver
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	





SPRINT-16

- Strong motor for better air delivery
- Smooth oscillation
- Superior low voltage performance
- Heavy base for stability

Sweep	Power Input	Speed	Air Deliver
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	72





HAVELLS

High performance motor with overheat protection

- Smooth oscillation by heavy duty gear box
- Aerodynamically designed transparent AS blade
- Free Neck arrangement for tilting

Wing MIDGET

Unique telescopic arrangement for height adjustment

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
400	55	1350	72

- Strong motor for better air delivery
- Smooth oscillation
- Superior low voltage performance
- Heavy base for stability
- Aerodynamically designed balanced ABS blades

Sweep	Power Input	Speed	Air Deliv
(mm)	(Watts)	(RPM)	(CMM
450	65	1330	



- Strong motor for better air delivery
- Smooth oscillation
- Superior low voltage performances
- Wider base for stability
- Aerodynamically balanced blades
- 2 hour timer setting

weep	Power Input	Speed	Air Delivery
mm)	(Watts)	(RPM)	(CMM)
450	65	1340	82

PedestalFans

Pedestal Fans

2 Pedestal Fan

- Telescopic arrangement for height adjustment
- Stable & sturdy base
- Powerful motor with heavy duty gear box
- Superior aesthetics
- Pull chain arrangement for speed control

weep	Power Input	Speed	Air Delivery
mm)	(Watts)	(RPM)	(CMM)
450	100	1400	110

Windstorm

Powerful energy efficient heavy duty motor

 Unique aerodynamically designed 4 leaf metal blade for excellent air thrust

Telescopic height adjustment from 1060 mm to 1225 mm

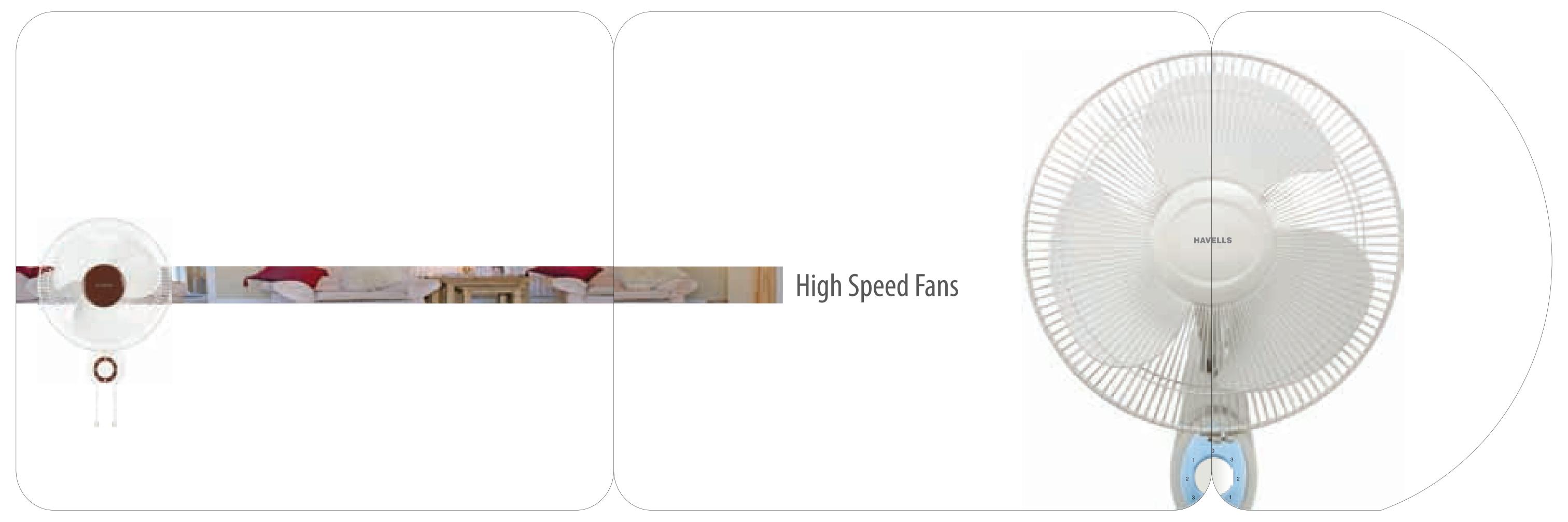
Three speed control

Attractive bi-colour metallic finish

Sweep (mm)Power Input (Watts)Speed (RPM)Air Delivery (CMM)4501901350130

HAVELLS







High Speed Fans

HAVELLS

High Speed Fans



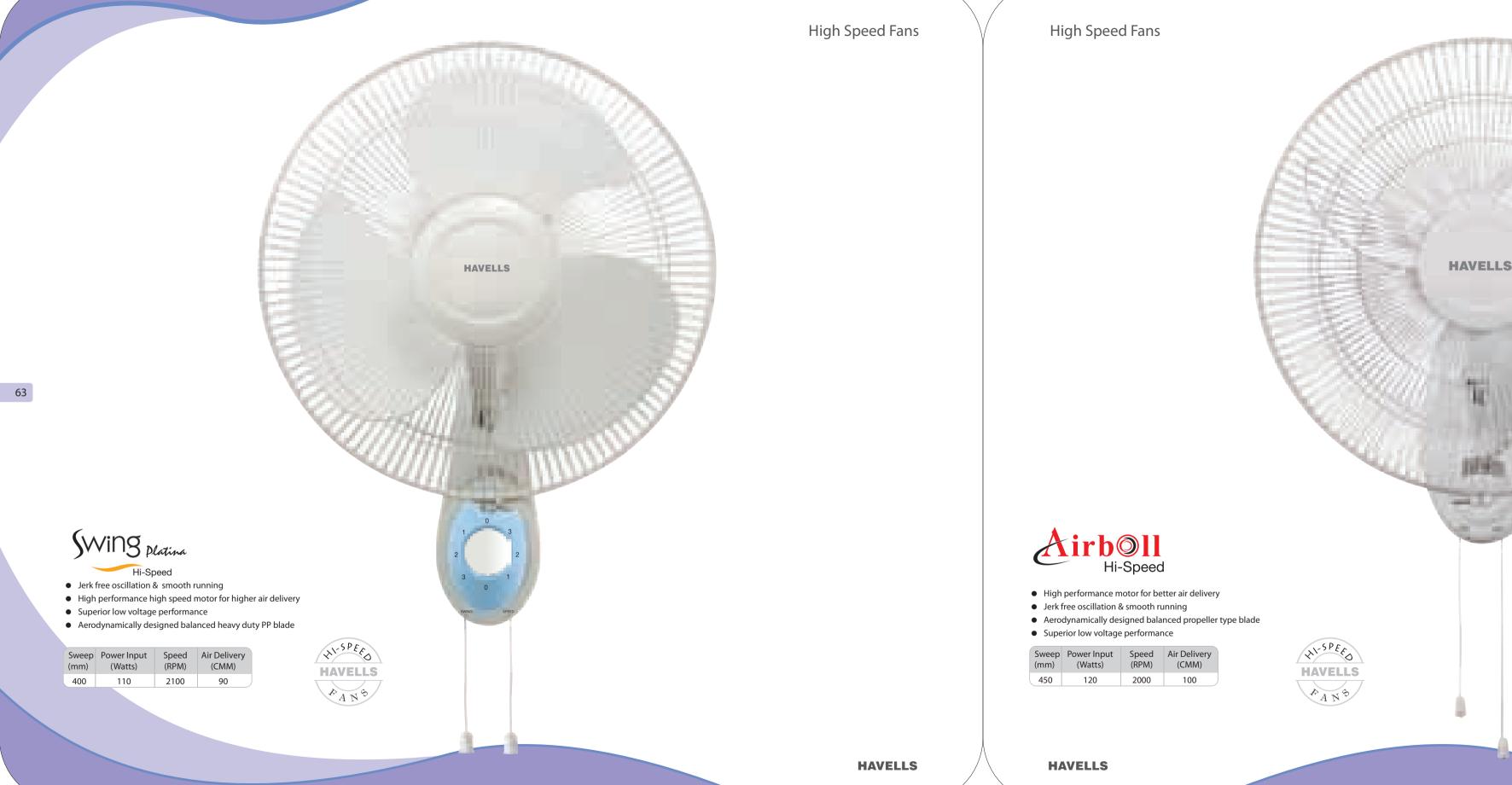
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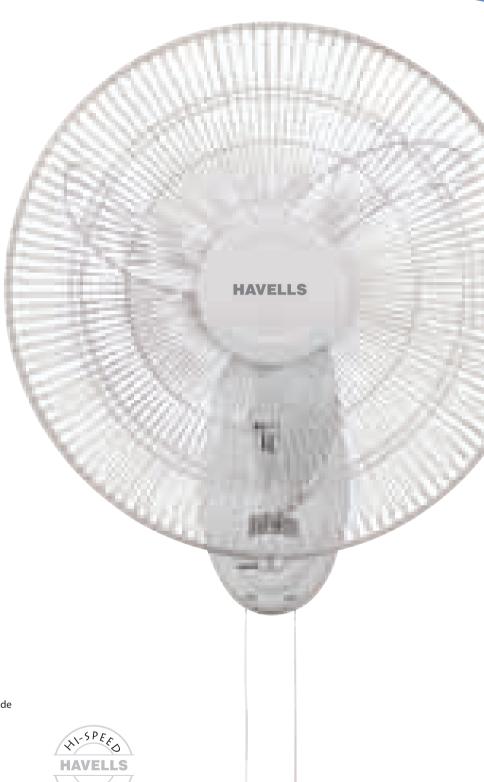


- Elegant looks
- Aerodynamically designed AS blades
- Powerful motor for higher delivery

Sweep Power Input		Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
300	75	2200	70







High Speed Fans

HAVELLS

High Speed Fans





- Strong motor for better air delivery
- Smooth oscillation
- Superior low voltage performance
- Heavy base for stability

Sweep	Power Input	Speed	Air Delivery
(mm)	(Watts)	(RPM)	(CMM)
450	120	2000	100







Selection Guide-Exhaust Fans



In many areas within a building, mechanical ventilation, powered by fans, is a practical (and often a legal) requirement. The rate of ventilation, conveniently measured in cubic meter of air per hour must be sufficient to satisfy the following three requirements:

a) Sufficient air movement throughout the room or building to prevent the formation of pockets of stale, stagnant air. b) Sufficient fresh air supply and foul air exhaust to limit the level of air pollution from

all sources in the building, including humidity. c) Reduction of air temperature, within the limits set by the climate, by the removal of

heat generated within the building or supplied by the sun.

Ventilation Requirements

Air Change ratings- The simplest method of determining the ventilation rate required is to make use of the accumulated experience of the industry expressed in a table of "air changes rates". The volume in cubic metres (m3) of the space to be ventilated is estimated and multiplied by the number of air changes per hour to give the ventilation rate in m3 per hour.

Havells Exhaust fans should be installed in such a way as to draw fresh air movement throughout the room or building to be ventilated so that it prevents formation of air pockets and the state air is totally extracted. It is recommended to mount the fan on a wall opposite the inlets and at highest possible level normally not less than 7' so that any smoke, steam or odour laden air, warmer than ambient temperature within the room and having tendency to arise, can be effectively exhausted. The exhaust fan should be installed at a higher level than ceiling fan blades, if both are located in same area. The sketch shows correct installation of exhaust fans.

Office Hall/Bank/Hospital ward 08-12 Factory/Workshop 12-20

Canteen/Restaurant 15-20 Boiler House/Foundry 40-60 Cinema/Auditorium/Kitchen/ 20-30 Toilet/Photographic darkroom Laboratory 08-30

Location : Office Location : Factory Volume: $30m \times 20m \times 8m = 4800m^3$ Volume: $10m \times 10m \times 4m = 400m^3$ Required air changes per hour = 10 Required air changes per hour = 20 air movement : $400 \times 10 = 4000 \text{ m}^3/\text{hr}$ Air movement : $4800 \times 20 = 96000 \text{m}^3/\text{hr}$ $Requirement\ of\ exhaust\ fans=2\ Nos.\ 12''/\ 1420\ RPM \quad Requirement\ of\ exhaust\ fans=9\ Nos.\ 24''/\ 920\ RPM$

Portable location





Air changes per hour







Domestic Exhaust Fans-Plastic



VENTILAIR DX

- Ideal for mounting on glass window
- High quality engineering plastic, resistant
- to colour change with anti static properties



Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMH)	Rated Voltage	Rated Frequency(Hz)	Noise Level(db)
150	24	1350	280	220	50	34
200	28	1280	520	220	50	42
250	36	1200	860	220	50	44

VENTIL-AIR DX-FG

HAVELLS

Domestic Exhaust Fans-Plastic



100 mm & 150 mm sweeps

VENTILAIR DXW

- Ideal for mounting on glass window
- High quality engineering plastic, resistant to colour change with anti static properties

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMH)	Rated Voltage	Rated Frequency(Hz)	Noise Level(db)
100	11	1350	84	220	50	43
150	18	1280	210	220	50	42

VENTILAIR DXR

- Back shutter & fan ON-Off operations are interlocked through pull cord
- High quality engineering plastic, resistant to colour change with anti static properties



Sweep Power Input Speed Air Delivery Rated Rated	
	Noise evel(db)
150 18 1250 380 220 50	42

Domestic Exhaust Fans-Plastic



VENTILAIR DX-WE

- Electrically operated automated front shutter
- Modern design, fashionable & elegant look

(mm)	Power Input (Watts)	Speed (RPM)	(CMH)	Rated Voltage	Rated Frequency(Hz)	Noise Level(db)
150	18	1350	210	220	50	42



Domestic Exhaust Fans-Plastic



- Modern design & elegant look
- High quality engineering plastic, resistant to colour change with anti static properties

Sweep	Power Input	Speed	Air Delivery	Rated	Rated	Noise
(mm)	(Watts)	(RPM)	(CMH)	Voltage	Frequency(Hz)	Level(d
130	28	1250	150	220	50	42

HAVELLS

HAVELLS

Suitable for window & wall mounted indoor installation

Domestic Exhaust Fans-Metal



VENTILAIR DB

- Double ball bearings heavy duty motor
- Protective bird guard is provided
- Robust construction

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMH)	Rated Voltage	Rated Frequency(Hz)	Noise Level(db)
230	45	1400	850	230	50	40-45
300	70	1400	1600	230	50	40-45

Domestic Exhaust Fans-Metal



VENTILAIR DS

- Specially designed metal blade
- Powder coated metallic finish
- Sturdy steel bird guard

HAVELLS

Sweep (mm)	Power Input (Watts)	Speed (RPM)	Air Delivery (CMH)	Rated Voltage	Rated Frequency(Hz)	Noise Level(db)
230	42	1400	700	230	50	40-45
300	55	1350	1200	230	50	45-50

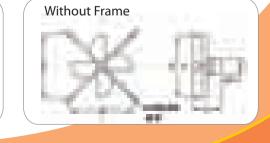








 300
 388
 313
 328
 10.2
 115
 115
 250
 300



IP55 **Protected**

IS:2312-1967

Heavy Duty Exhaust Fan



CM/L-3062441
For 300 mm, 380 mm, 450 mm, 600 mm*
* 300/380/450 mm in 1400 RPM
& 600 mm in 900 RPM

Turbo Force Heavy Duty Exhaust Fan

At 230 Volts, 1 Phase, 50Hz AC or 400 Volts, 3 Phase, 50Hz AC

Sweep (mm)	Phase	Speed (RPM)	Input (Watt)	Current (AMP)	Free air flow M³/hr.)	Noise Leve (dB)
300	Single	900 1400	50 82	0.23 0.38	1275 1900	40-45 45-50
380	Single	900	90	0.42	2250	50-55
360		1400	150	0.70	3600	55-60
450	Single	900	132	0.60	4400	55-60
.50	Jiiigie	1400	370	1.70	6800	60-65
600	Single	700	240	1.10	7900	55-60
	Jiligic	1400	500	2.30	10500	60-65
450	Three	1400	370	0.82	6800	60-65
600	Three	900	500	0.95	10500	60-65

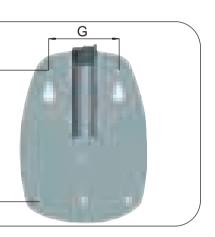
Turboferce Heavy Duty Exhaust Fan

- Energy Efficient motor
- Dynamically balanced impellers for smooth & vibration-free
- Turbo profile blades for higher air delivery
- Aluminium pressure die-cast motor shell with fins ensure better heat dissipation resulting in a cooler motor
- Pre-lubricated double ball bearing for maintenance free running
- Generally conforming to IS 2312-1967

HAVELLS

Tolerance on ratings:-(As per IS 2312-1967)
Speed :- 5% to + 10%
Power :+ 10%
Air Delivery :- 10%

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Turbof•rce

Wall Air Circulator Fan

- Double ball bearings ZZ (Permanent lubricated) for longer life
- Aerodynamically designed blades for higher air delivery and minimum noise level
- Sturdy close-mesh guards with powder coating to ensure corrosion resistance as per safety standards
- Thermally protected motor
- Metallic hi-lustre finish with chrome plated pipe Heavy duty gear box
- 90° Oscillation for wide coverage
- Efficient motor design to suit voltage / supply fluctuation
- Generally conforming to IS: 2997-1964

	Sweep	Volts (V)	AC Cycle (C/S)	Power Consumption	Speed RPM	Phase	Air Del. M³/min.	Min Peak air velocity	No. of blades	No. of Speeds		djustment mm Max.
4	50mm (18") Wall	230	50	90W	1440	1	150	245	3	1	-	-
4	50mm (18") Pedestal	230	50	90W	1440	1	150	245	3	1	1100	1400
6	00mm (24") Wall	230	50	180W	1440	1	280	245	3	1	-	-
6	00mm (24") Pedestal	230	50	180W	1440	1	280	245	3	1	1400	1650
7	'50mm (30") Wall*	230	50	225W	1440	1	410	245	3	1	-	-
7	'50mm (30") Pedestal*	230	50	225W	1440	1	410	245	3	1	1500	1950

Tolerance on ratings:-(As per IS 2997-1964)
Speed : -10%
Power : +10%
Air Delivery: -10%

Air Delivery measurement at a distance of 6 times blade sweep from the fan as per IS 2997-1964

Specifications may vary without notice due to continuous technology upgradation. $\ensuremath{^{\circ}}$ On request

HAVELLS

Air Circulators



* On Request

Turbof•rce

Pedestal Air Circulator Fan