

Announcing ACERA GEOSPEC and the Concept of Beautiful Performance.

The Power Wave of Change

When we set out to design our new hydraulic excavators, we kept our eyes on the big picture.

Of course we wanted machines with greater digging capacity.

But they also had to be fuel-efficient and economical,

while imposing less of a burden on the local and global environments.

Applying our advanced technologies,

we developed KOBELCO's new ACERA GEOSPEC series,

an entirely new kind of excavator that beautifully balances

all the demands of today's construction industry.

Lean and efficient with capacity to spare,

these sleek powerhouses bring a whole new style to the worksite while

setting new standards for environmental responsibility.

GEOSPEC ACERA GEOSPEC

The "GEO" in GEOSPEC expresses our deep respect for our planet, and for the solid ground where excavators are in their element. This is accompanied by SPEC, which refers to the performance specifications needed to get the job done efficiently as we carry on the tradition of the urban-friendly ACERA series.



Sturdy Construction & Built-in Durability

Stable Attachment Strength

Forged and cast components are used throughout. The arm tip's cross-sectional coefficient is 15 % higher than previous models, giving the arm the same strength as the 3-faced reinforced arm that was offered only as an option before. The strength of the boom foot has also been increased by 18 %.

Durability That Retains Machine Value Five and Ten Years in the Future

- New operator's seat covered in durable materialHigh-quality urethane paint
- Easily repaired bolted hand rails



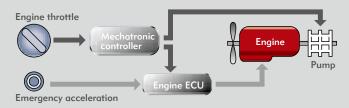
The pre-air cleaner prolongs a replacement cycle of main air cleaner. MANAGORIA Stronger casing for travel motor

Emergency Acceleration (Dial) Permits Continued Operation in the Unlikely Event of Malfunction



If unexpected trouble is experienced with the ITCS mechatronic control system, the machine can still be operated using the emergency acceleration system. Digging modes are also automatically relayed to an emergency system so that digging

can continue temporarily until a service person arrives to repair the primary system.



Newly designed MCU



- Vertical alignment and sealed cover gives better protection from water and dust
- Integration in base plate boosts assembly quality
- Reliable fixture to base plate

Countermeasures Against Electrical System Failure

All elements of the electrical system, including controller, have been designed for enhanced reliability.



Efficient Performance

Amazing Productivity with 18 % Saving in Fuel Consumption and Top-Class Cost Performance



Fuel Consumption*

18% improvement in fuel efficiency when performing more work volume (S-Mode)



Work Volume*

27% increase in work volume using the same amount of fuel. (H-Mode)

"Top-Class" Powerful Digging

Max. arm crowding force: 230_{kN} (2.25m arm)

Max. arm crowding force with power boost:

253kN (2.25m arm)

Max. bucket digging force:

216kN (2.3m³ bucket)



Max. bucket digging force with power boost:

236kN (2.3m³ bucket)



Powerful Travel

Travel torque: increased by 130%



Drawbar pulling force:

322kN



Greater Swing Power, Shorter Cycle Times

Swing torque: increased by 70/



Swing speed:

10.0min⁻¹



Significant Extension of Continuous Working Hours

The combination of large-capacity fuel tank and excellent efficiency delivers an impressive 22 % increase in continuous operation hours.**

Fuel tank:

22%



Light Lever Operation



It takes 10% less effort to move the control levers, so that operators can work longer hours with less fatigue.

10%Less

^{**}The value shows results from actual measurements taken by KOBELCO for continuous operation in S Mode, compared with previous models. Results vary depending on the method of operation and load conditions.



^{*}The value shows results from actual measurements taken by KOBELCO when compared with previous KOBELCO models.

**The value shows results from actual measurements taken by KOBELCO for

NEXT-3E Technology

New Hydraulic System

inspections Rigorous pressure loss are performed on all components of the hydraulic piping, from the spool of the control valve to the connectors. This regimen, combined with the use of a new, high-efficiency pump, cuts energy loss to a minimum.



NEXT-3E Technology

Next-Generation Electronic Engine Control

The high-pressure, common-rail fuel-injection engine features a cooled EGR (Exhaust Gas Recirculation) device that lowers the air intake temperature to keep the oxygen concentration



Air intake

Exhaust



NEXT-3E Technology

Total Tuning Through Advanced ITCS Control

The next-generation engine control is governed by a new version of ITCS, which responds quickly to sudden changes in hydraulic load to ensure that the engine runs as efficiently as possible with a minimum of wasted output.

ff first (Intelligent Total Control System) is an advanced, computerized system that provides comprehensive control of all machine functions.

e Select: Two Digging Modes

For heavy duty when a higher performance level is required.



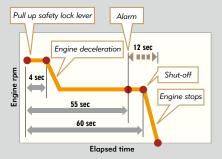
For normal operations with lower fuel consumption.

Optional N&B (crusher and breaker)

The operator selects the desired mode from inside the cab, and the selector valve automatically configures the machine accordingly.



to Idle Stop Provided as Standard Equipment

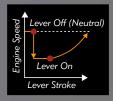




This function saves fuel and cuts emissions by shutting down the engine automatically when the safety lock lever is pulled up. It also stops the hourmeter, which helps to retain the machine's asset value.

Automatic Acceleration/Deceleration Function Reduces Engine Speed

Engine speed is automatically reduced when the control lever is placed in neutral, effectively saving fuel and reducing noise and exhaust emissions. The engine proportionally comes to desire speed when the lever is moved out of neutral.



Easy Maintenance

Comfortable "On the Ground" Maintenance

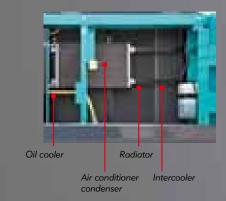


The machine layout was designed with easy inspection and maintenance in mind.

Access Through the Left Side Cover

Parallel Cooling Units Are Easy to Clean

Large-capacity radiator and oil cooler are aligned side by side, with intercooler positioned in front. This more effective layout gives outstanding cooling results.



Quick Oil Drain Valves for Quick Maintenance



A quick drain valve, which requires no tools, is provided as standard equipment.

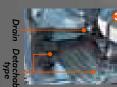
Quick drain valve



To facilitate fuel tank cleaning, the fuel drain valve was made larger and fitted with a flange on the bottom.

Fuel drain valve

More Efficient Maintenance



Detachable two-piece floor mat with handles for easy removal.



Easy-access fuse box.



Air conditioner filter can be easily removed.



Hour meter can be checked while standing on the ground.



Large-capacity tool box.

Pre-air Cleaner

The pre-air cleaner prolongs a replacement cycle of main air cleaner.







Access Through the Right Side Cover

The fuel filter with built-in water separator functions in two ways by removing large contaminants and separating out water.





Engine Oil Filter

Pre-fuel filter (with built-in water separators)

ighly Durable Super-fine Filter

The high-capacity hydraulic oil filter incorporates glass fiber with superior cleaning power and durability. With a replacement cycle of 1,000 hours and a construction that allows replacement of the filter element only, it's both highly effective and highly economical.



Super-fine filter



The large-capacity element features a double-filter structure that keeps the engine running clean even in dusty environments.

Air cleaner (double element)

itor Display with Essential Information for



- Displays only the maintenance information that's needed, when it's needed.
- Self-diagnostic function that provides early-warning detection and display of electrical system malfunctions.
- •Record previous breakdowns, including irregular and transient malfunctions.

Choice of 16 Languages for Monitor Display



With messages including those requiring urgent action displayed in the local language, users in all parts of the world can work with greater peace of mind.

Comfort and Safety

Spacious, Comfortable Cab

Designed for safety, the cab meets ISO standards, and also offers a spacious interior and plenty of foot room, with levers and other controls ideally positioned for easy operation.

- A long wiper covers a wide area for a broad view in bad weather.
- Back mirrors provide a safe view of the rear.
- Reinforced green glass windows meet European standards.

Wide-Access Cab Ensures Smooth Entry and Exit



The left control box lifts up with the safety lock lever to add 10° to the cab entry angle for easy entrance and exit.

10°



Plenty of Foot Room

The rigid cab construction and liquid-filled viscous cab mounts minimize cab vibration. In addition, the use of new lower rollers on the crawlers cuts travel vibration in half compared with previous models.

In-Cab Noise is Reduced by 3dB Compared with Previous Models.

Newly Designed Information Display Prioritizes Visual Recognition



The analog gauge provides information that's easy to read regardless of the operating environment. The information display screen has been enlarged, and a visor is attached to further enhance visibility.

Suspension Seat

Comfortable, double-sliding suspension seat, fitted as standard, creates a higher grade working environment and reduces fatigue.





Creating a Comfortable Operating Environment



Seat can be reclined to horizontal position



Double slide seat



One-touch lock release simplifies opening and closing the front window



Powerful automatic air conditioner

Spacious luggage tray

• New interior design and materials create an

elegant feel



Large cup holder

Low Noise Level and Mild Sound Quality

The electronically controlled common-rail engine has a unique fuel injection system that runs quietly.

Meets EMC (Electromagnetic Compatibility) Standards in Europe.

Measures have been taken to ensure that the GEOSPEC machines do not cause electro-magnetic interference.

Bracket for Attaching a Head Guard Provided as Standard Equipment

A bracket is provided as standard equipment that allows the optional head guard to be simply bolted on.

Automatic Engine Shut-Down for Low Engine Oil pressure

Safety Features That Take Various Scenarios into Consideration



Firewall separates the pump compartment from the engine



Hammer for emergency exit



Reflector

- •Thermal guard prevents contact with hot components during engine inspections
- Hand rails meet European standards
- Retractable seatbelt requires no manual adjustment

Remote Monitoring for Peace of Mind



KOBELCO service personnel/dealer/customer

GEOSCAN is the remote monitoring system for Acera Geospec series excavators. When a hydraulic excavator is fitted with this system, data on the machine's operation, such as operating hours, location, fuel consumption, and maintenance status can be obtained remotely.

Direct Access to Operational Status

Accurate location data can be obtained even from sites where communications are difficult.

Data on fuel consumption and idling times can be used to indicate improvements in fuel consumption.



Latest location

Operating Hours

A comparison of operating times of machines at multiple locations shows which locations are busier and more profitable.

Operating hours on site can be accurately recorded, for running time calculations needed for machines, etc.



Daily report



Fuel consumption

Graph of Work Content

The graph shows how working hours are divided among different operating categories, including digging, idling, traveling and optional operations (N&B).



Work status

Maintenance Data and Warning Alerts

Provides maintenance status of separate machines operating at multiple

Maintenance data is also relayed to KOBELCO service personnel, for more efficient planning of periodic servicing.



Maintenance

Security System

The system can be set an alarm if the machine is operated outside designated

It can be set an alarm if the machine is moved out of its designated area to another location.



Alarm for outside of reset area





Engine

Model	HINO JO8E-TM
Туре:	Direct injection, water-cooled, 4-cycle diesel engine with turbocharger, intercooler
No. of cylinders:	6
Bore and stroke:	112 mm × 130 mm
Displacement:	7.684 L
Rated power output:	280 HP (209 kW)/2,100 min-1 (ISO14396)
Max. torque:	998 N•m/1,600 min ⁻¹ (ISO14396:2002)



Travel motors:	2 × axial-piston, two-step motors
Travel brakes:	Hydraulic brake per motor
Parking brakes:	Oil disc brake per motor
Travel shoes:	48 each side
Travel speed:	5.6/3.3 km/h
Drawbar pulling force:	322 kN (ISO7464)
Gradeability:	70 % {35°}
Ground clearance:	500 mm



Hydraulic System

Pump	
Type:	Two variable displacement pumps + 1 gear pump
Max. discharge flow:	2 × 294 L/min, 1 × 20 L/min
Relief valve setting	
Boom, arm and bucket:	34.3 MPa {350 kgf/cm ² }
Power Boost:	37.8 MPa {385 kgf/cm ² }
Travel circuit:	34.3 MPa {350 kgf/cm ² }
Swing circuit:	29.0 MPa {296 kgf/cm ² }
Control circuit:	5.0 MPa {50 kgf/cm ² }
Pilot control pump:	Gear type
Main control valves:	8-spool
Oil cooler:	Air cooled type



Cab & Control

All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat.

Two hand levers and two foot pedals for travel Two hand levers for excavating and swing Electric rotary-type engine throttle



Boom, Arm & Bucket

Boom cylinders:	140 mm × 1,550 mm
Arm cylinder:	170 mm × 1,788 mm
Bucket cylinder:	150 mm × 1,193 mm



Swing System

Swing motor:	Axial-piston motor
Brake:	Hydraulic; locking automatically when the swing control lever is in the neutral position
Parking brake:	Hydraulic disc brake
Swing speed:	10.0 min ⁻¹ {rpm}
Tail swing radius:	3,500 mm
Min. front swing radius:	4,370 mm



Refilling Capacities & Lubrications

Fuel tank:	580 L
Cooling system:	31.1 L
Engine oil:	28.5 L
Travel reduction gear:	2 × 9.5 L
Swing reduction gear:	7.4 L
Hydraulic oil tank:	280 L tank oil level 353 L hydraulic system



Attachments

Backhoe bucket and arm combination

Sanition statistic and arm combination					
	llaa		Backho	e bucket	
	Use	Normal digging			
Bucket capacity	ISO heaped m ³	1.4	1.6	2.0	2.3
Ducket capacity	Struck m³	1.0	1.2	1.45	1.7
Opening width	With side cutter mm	1,460	1,650	1,970	1,890
Opening widin	Without side cutter mm	1,250	1,440	1,760	1,770
No. of bucket teeth		5	5	5	5
Bucket weight	kg	1,410	1,450	1,740	1,850
	2.25 m super short arm	0	0	0	0
Combinations	2.6 m short arm	0	0		×
	3.0 m standard arm	©		×	×

 $[\]odot$ Standard \odot Recommended \Box Earth work digging \times Not recommended





Working Ranges

Unit: m

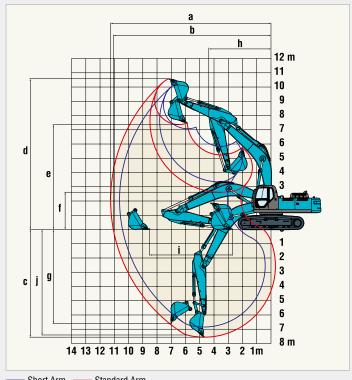
Boom	6.5 m		
Arm Range	Super short 2.25 m	Short 2.6 m	Standard 3.3 m
a - Max. digging reach	10.35	10.61	11.26
b- Max. digging reach at ground level	10.15	10.4	11.06
c - Max. digging depth	6.46	6.86	7.56
d- Max. digging height	10.28	10.26	10.58
e - Max. dumping clearance	7.05	7.06	7.37
f - Min. dumping clearance	3.73	3.32	2.62
g- Max. vertical wall digging depth	4.32	5.84	6.61
h- Min. swing radius	4.48	4.45	4.37
i - Horizontal digging stroke at ground level	3.40	4.21	5.82
j - Digging depth for 2.4 m (8') flat bottom	6.31	6.67	7.4
Bucket capacity ISO heaped m ³	2.3	1.6	1.4



Unit: kN (tf)

Arm length	Suoer short	Short	Standard
	2.25 m	2.6 m	3.3 m
Bucket digging force	216	221	222
	236*	244*	244*
Arm crowding force	230	205	165
	253*	225*	181*

^{*}Power Boost engaged.



Short Arm — Standard Arm

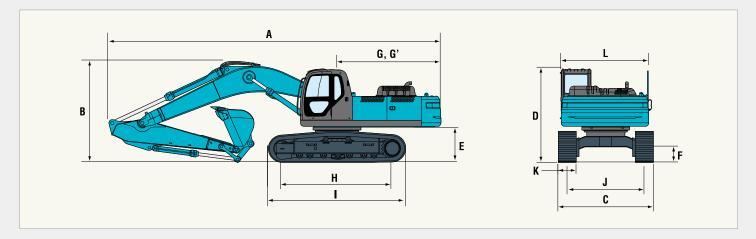


Dimensions

	Arm length	Suoer short 2.25 m	Short 2.6 m	Standard 3.3 m
A	Overall length	11,560	11,430	11,350
В	Overall height (to top of boom)	3,760	3,640	3,420
C	Overall width	3,200		
D	Overall height (to top of cab)	3,160		
E	Ground clearance of rear end*	1,190		
F	Ground clearance*	500		

	Unit: mm
Tail swing radius	3,650
Distance from center of swing to rear end	3,650
Tumbler distance	4,050
Overall length of crawler	4,980
Track gauge	2,600
Shoe width	600
Overall width of upperstructure	2,950
	Distance from center of swing to rear end Tumbler distance Overall length of crawler Track gauge Shoe width

^{*} Without including height of shoe lug.



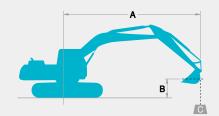
Operating Weight & Ground Pressure

In standard trim, with 6.5 m boom, 2.25 m super short arm, and 2.3 m³ ISO heaped bucket

Shaped		Triple grouser shoes (even height)
Shoe width	mm	600
Overall width	mm	3,200
Ground pressure	kPa (kgf/cm²)	67
Operating weight	kg	35,800

Lifting Capacities







- A Reach from swing centerline to bucket hook
- B Bucket hook height above/below ground
- C Lifting capacities in kilograms
- Max. discharge pressure: 37.8 MPa (385 kg/cm²)

SK380HE	DLC	Super Short Arm: 2.25 m, Bucket: 2.3 m³ ISO heaped 1,850 kg Shoe: 600 mm (Power Boost)												
A B		3.0 m		4.5 m		6.0) m	7.5	i m	At Max				
			#		—						—	Radius		
7.5 m	kg									*7,340	*7,340	6.94 m		
6.0 m	kg					*8,010	*8,010	*7,280	6,230	*7,200	5,610	7.90 m		
4.5 m	kg			*11,950	*11,950	*9,130	8,820	*7,740	5,990	*7,250	4,730	8.48 m		
3.0 m	kg			*14,790	12,560	*10,440	8,140	*8,380	5,660	7,220	4,260	8.78 m		
1.5 m	kg			*16,430	11,630	*11,500	7,590	*8,960	5,360	7,020	4,100	8.80 m		
G.L.	kg			*16,570	11,370	*11,980	7,290	8,920	5,170	7,230	4,200	8.57 m		
-1.5 m	kg	*17,470	*17,470	*15,800	11,430	*11,780	7,220	8,880	5,130	7,980	4,630	8.05 m		
-3.0 m	kg	*18,470	*18,470	*14,120	11,700	*10,690	7,370			*8,440	5,650	7.18 m		
-4.5 m	kg	*14,050	*14,050	*10,980	*10,980					*8,300	8,210	5.81 m		

SK380HD	SK380HDLC Short Arm: 2.6 m, Bucket: 1.6 m³ ISO heaped 1,450 kg Shoe: 600 mm (Power Boost)													
	Α	3.0	3.0 m		4.5 m		6.0 m		7.5 m) m	At Max. Reach		
В			—		—				—		—			Radius
7.5 m	kg											*6,910	*6,910	7.26 m
6.0 m	kg							*7,100	6,490			*6,870	5,490	8.18 m
4.5 m	kg			*11,430	*11,430	*8,910	*8,910	*7,640	6,240			*7,070	4,680	8.75 m
3.0 m	kg			*14,360	13,160	*10,310	8,470	*8,350	5,900	7,110	4,270	7,070	4,250	9.03 m
1.5 m	kg			*16,4000	12,100	*11,510	7,900	*9,010	5,590	6,950	4,120	6,880	4,080	9.06 m
G.L.	kg			*16,950	11,700	*12,170	7,550	9,120	5,370			7,060	4,160	8.83 m
-1.5 m	kg	*17,780	*12,400	*16,450	11,670	*12,140	7,430	9,030	5,290			7,700	4,530	8.33 m
-3.0 m	kg	*20,380	*20,100	*15,020	11,870	*11,290	7,510					*8,520	5,410	7.49 m
-4.5 m	kg	*16,190	*24,500	*12,260	*12,260	*9,060	7,840					*8,660	7,500	6.19 m

SK380HDLC Standard Arm: 3.3 m, Bucket: 1.4 m³ ISO heaped 1,410 kg Shoe: 600 mm (Power Boost)																
	Α	1.5	m	3.0) m	4.5	i m	6.0) m	7.5	5 m	9.0) m	At Max.	Reach	
В		L	—		—		-		—		—		—		—	Radius
7.5 m	kg									*6,080	*6,080			*3,860	*3,860	8.07 m
6.0 m	kg									*6,310	*6,310			*3,800	*3,800	8.91 m
4.5 m	kg							*7,950	*7,950	*6,920	6,310	*6,340	4,440	*3,900	*3,900	9.43 m
3.0 m	kg			*13,820	*13,820	*12,850	*12,850	*9,430	8,620	*7,710	5,930	*6,730	4,250	*4,160	3,670	9.69 m
1.5 m	kg			*7,640	*7,640	*15,360	12,340	*10,810	7,950	*8,490	5,570	6,890	4,060	*4,600	3,520	9.72 m
G.L.	kg			*11,210	*11,210	*16,580	11,660	*11,740	7,490	9,050	5,290	6,730	3,910	*5,320	3,560	9.51 m
-1.5 m	kg	*11,590	*11,590	*16,120	*16,120	*16,630	11,450	*12,040	7,270	8,880	5,140	6,660	3,840	*6,500	3,830	9.04 m
-3.0 m	kg	*16,450	*16,450	*22,070	*22,070	*15,700	11,530	*11,600	7,260	*8,860	5,140			7,640	4,440	8.28 m
-4.5 m	kg	*21,950	*21,950	*18,920	*18,920	*13,620	11,850	*10,130	7,470					*7,970	5,770	7.13 m
-6.0 m	kg					*9,550	*9,550							*7,830	*7,830	5.33 m

- 1. Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
- Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.

 3. Bucket lift hook defined as lift point.

- 4. The above lifting capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
- 5. Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
- at an unites.

 6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



STANDARD EQUIPMENT

Engine, HINO J08E, diesel engine with turbocharger and intercooler

Automatic engine deceleration

Auto Idle Stop (AIS)

Removable clean-out screen for radiator

Automatic engine shut-down for low engine oil pressure

Engine oil pan drain valve

Double element air cleaner

Pre-air cleaner

Working mode selector (H-mode and S-mode)

Power Boost

SWING SYSTEM & TRAVEL SYSTEM

Swing rebound prevention system

Straight propel system

Two-speed travel with automatic shift down

Sealed & lubricated track links

Grease-type track adjusters

Automatic swing brake

Arm regeneration system

Aluminum hydraulic oil cooler

MIRRORS & LIGHTS

Two rearview mirrors

Four front working lights

Two control levers, pilot-operated

Tow eyes

Horn, electric

Integrated left-right slide-type control box

Cab, all-weather sound suppressed type

Cab light (interior)

Luggage tray

Large cup holder

Detachable two-piece floor mat

Double slide seat

7-way adjustable suspension seat

Retractable seatbelt

Handrails

Intermittent windshield wiper with double-spray washer

Tinted safety glass

Pull-up type front window and removable lower front window

Easy-to-read multi-display monitor

Automatic air conditioner

Emergency escape hammer

OPTIONAL EQUIPMENT

Radio, AM/FM Stereo with speakers

Wide range of buckets

Various optional arms

Front-guard protective structures Piping kit for additional attachment

Note: Standard and optional equipment may vary. Consult your KOBELCO dealer for specifics.

Note: This catalog may contain attachments and optional equipment that are not available in your area. And it may contain photographs of machines with specifications that differ from those of machines sold in your areas. Please consult your nearest KOBELCO distributor for those items you require. Due to our policy of continuous product improvements all designs and specifications are subject to change without advance notice. Copyright by KOBELCO CONSTRUCTION MACHINERY CO., LTD. No part of this catalog may be reproduced in any manner without notice.

KOBELCO CONSTRUCTION EQUIPMENT INDIA PVT. LTD.

H-200, Sector-63, Noida, Distt: G.B. Nagar, U.P. - 201 307, INDIA

Tel: +91-120-4079900 Fax: +91-120-4079999

www.kobelconet.in/

Inquiries To: