

BroachCutter[®]

Magnetic Drilling Machines & Cutters

The Unbeatable Four !



New Generation Magnetic Drilling Machines

Experience
New Heights
in Technology
& Service



TITAN

47mm Twist Drill Capacity



M30 Tapping Capacity



The HEAVY DUTY Magnetic Drilling Machine

TITAN from **BroachCutter**® equipped with Morse Taper No. 4 is designed for cutting holes up to 110mm diameter using annular cutters and drilling holes up to 47mm diameter with twist drill.

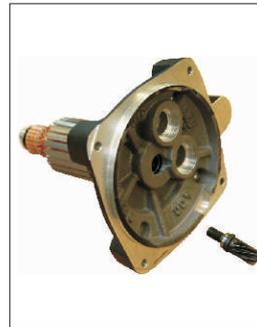


TITAN's 8 Distinctive Features

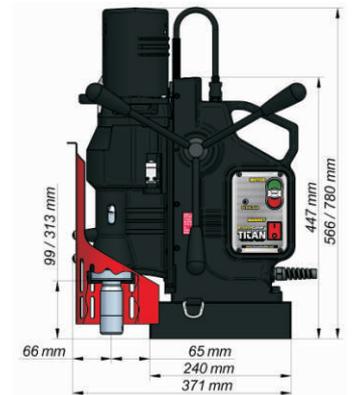
1. Motor Soft Start
2. Overload Protection with LED Indicator
3. Semi-Automatic GIB Backlash Adjustment
4. 4 Speed Gearbox
5. Magnetic Power Adhesion Control (MPAC) - Optional
6. Magnetic Field Shape Control (MFSC)



7. Integrated Gearbox Housing with slide



8. Service Friendly Replaceable Armature Spline



TITAN Features

- **TITAN** is equipped with a **4-Speed** Mechanical gear box & is also equipped with motor **overload protection** system with LED indicator.
- The **one piece gearbox** housing and slide. significantly increase its precision and durability.
- Unique **semi-automatic gib backlash adjustment** enables simple, fast and repeatable regulations without any expert knowledge or experience.
- **Replaceable spline** at the end of armature shaft eliminates laborious and expensive armature maintenance.
- Compact design allows for drilling very close to vertical surface.
- **TITAN** is equipped with electromagnetic base featuring magnetic field shape control system (**MFSC**) and magnetic power adhesion control module (**MPAC**), which detects adhesive force of electromagnetic base and protects both the machine and the operator

TITAN Standard Shipping Set

- Magnetic base drilling machine
- Metal Box
- MT4 Arbor with 19mm Bore - Through Spindle Continuous Cooling
- Swarf Shield/Cutter Guard
- Coolant Bottle Assembly
- Safety Chain with Snap Hook, Set of Tools with Wedge
- Operator's Manual (English)
- Standard shipping weight – 45 kg

TITAN Accessories

- Refer to Accessories page

TITAN Technical Specification

Spindle	MT4
Tool Holder	19mm (3/4")
Milling Cutter (Core drill) Ø	max 110 mm
Twist drill Ø	max 47 mm
Countersinking Ø	max 63 mm
Max Tap size	M30 (special tapping attachment required)
Stroke	230 mm
Max depth of cut (Core drill)	76 mm
Voltage	230V, 50Hz, 1Ph
Power consumption (W)	1800
Motor Power (W)	1650
Speeds (rpm)	85 / 135 / 160 / 250
MFSC (Magnetic Field Shape Control)	Yes
Overload Protection	Yes
Overload LED Indication	Yes
Magnetic clamping force (N) (25mm, Ra=1,25)	22000
Magnet Base Dimensions	120 x 240 x 63 (mm)
MPAC (Magnetic Power Adhesion Control)	Optional
Min. Workpiece Thickness	10 mm
Semi-automatic gib backlash adjustment	Yes
Weight	31 kg
Product Code	900003

TRIDENT



76x76mm Capacity New Generation Magnetic Drilling Machine

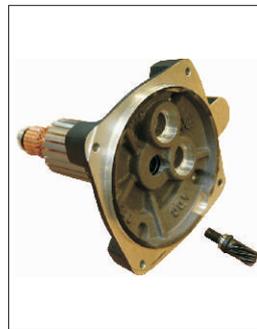
TRIDENT from **BroachCutter®** is a newest multi function magnetic drilling machine with Morse Taper No.3. Arbor. A Workhorse of a machine, it is capable of drilling upto 76mm (3") Dia. holes in 76mm (3") thick plates & up to 32mm Dia. holes using solid drill

TRIDENT's 8 Distinctive Features

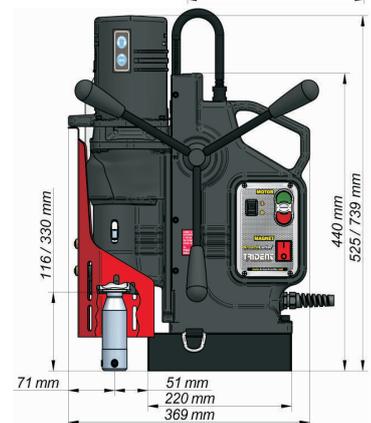
1. Motor Soft Start
2. 4 Speed Gearbox
3. Semi-Automatic GIB Backlash Adjustment
4. Magnetic Power Adhesion Control (MPAC) - Optional
5. Overload Protection
6. Magnetic Field Shape Control (MFSC)



7. Integrated Gearbox Housing with slide



8. Service Friendly Replaceable Armature Spline



TRIDENT The Work Horse Magnetic Drilling Machine

- High torque 1650 Watt motor, 4-speed gearbox 120/160rpm; 310/410rpm
- 76mm (3") hole capacity in 76 (3") thick material
- Morse Taper No. 3, 19.5mm bore
- Revolutionary service friendly design which incorporates a semi-automatic, self adjusting gib that requires little maintenance and provides accurate hole cutting
- Its precision and durability are significantly increased thanks to gearbox housing and slide, made as one piece
- Electronic Speed Stabilization system (ESSS) to stabilize the motor's speed under varying loads on the spindle
- Magnetic field shape control (MFSC) provides maximum holding power on thin material
- Magnetic power adhesion control (MPAC) module detects adequate adhesive force of electromagnetic base for safe operation

TRIDENT Standard Shipping Set

- Magnetic base drilling machine
- Metal Box
- MT3 Arbor with 19mm Bore - Through Spindle Continuous Cooling
- Swarf Shield/Cutter Guard
- Coolant Bottle Assembly
- Safety Chain with Snap Hook, Set of Tools with Wedge
- Operator's Manual (English)
- Standard shipping weight – 42 kg

TRIDENT Accessories

- Refer to Accessories page

TRIDENT Technical Specification

Spindle	MT3
Tool Holder	19mm (3/4")
Milling Cutter (Core drill) Ø	76 mm (3")
Twist drill Ø	32 mm (1-1/4")
Countersinking Ø	63 mm (2-1/2")
Max Tap size	M18 (special tapping attachment required)
Stroke	225 mm (8-7/8")
Max depth of cut (Core drill)	76 mm (3")
Voltage	230V, 50Hz, 1Ph
Power consumption (W)	1800 W
Motor Power (W)	1650 W
Speeds (rpm)	I Gear : 120 / 160 rpm
	II Gear : 310 / 410 rpm
MFSC (Magnetic Field Shape Control)	Yes
Overload Protection	Yes
Magnetic clamping force (N) (25mm, Ra=1,25)	19500
Magnet Base Dimensions	110 x 220 x 56 mm
MPAC (Magnetic Power Adhesion Control)	Optional
Min. Workpiece Thickness	10 mm (3/8")
Semi-automatic gib backlash adjustment	Yes
Weight	27 kg
Product Code	900005

SUPER

23mm Twist Drill Capacity



Ø12-50
mm

CORE DRILLING

50x50mm Capacity, Two-Speed Hi-Torque Motor

SUPER from **BroachCutter**® is a new generation magnetic drilling machine with Morse Taper No.2. Its superior features include : Compact Design, increased precision and durability thanks to gearbox housing & slide made as one piece and a powerful motor.



SUPER's 8 Distinctive Features

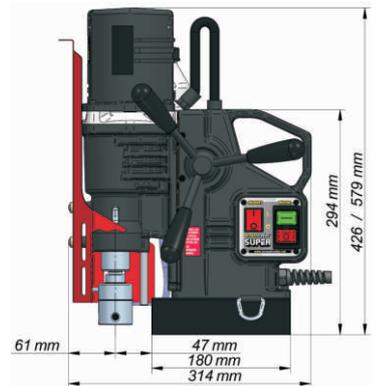
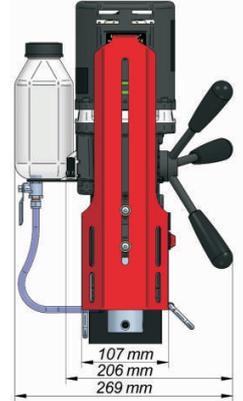
1. 2 Speed Gearbox
2. Semi-Automatic GIB Backlash Adjustment
3. Magnetic Power Adhesion Control (MPAC) - Optional
4. Energy Saving Base (ESB)
5. High Torque 1260 watts Motor
6. Magnetic Field Shape Control (MFSC)



7. Integrated Gearbox Housing with slide



8. Service Friendly Replaceable Armature Spline



SUPER Powerful Magnetic Drilling Machine

- High torque 1260 Watt motor, 2-speed gearbox 200/400 rpm
- 50mm (2") hole capacity in 50mm (2") thick material
- Morse Taper No. 2, 19mm (3/4") Weldon Tool Holder
- Revolutionary service friendly design which incorporates a semi-automatic, self adjusting gib that requires little maintenance and provides accurate hole cutting
- A unique replaceable spline on the end of the armature shaft eliminates laborious and expensive armature maintenance
- Its precision and durability are significantly increased thanks to gearbox housing and slide, made as one piece
- Electromagnetic energy saving base (ESB) uses only 50% of the power when the motor is not under load
- Magnetic field shape control (MFSC) provides maximum holding power on thin material
- Magnetic power adhesion control (MPAC) module detects adequate adhesive force of electromagnetic base for safe operation

SUPER Standard Shipping Set

- Magnetic base drilling machine
- Metal Box
- MT2 Arbor with 19mm Weldon Bore - with cooling ring
- Swarf Shield/Cutter Guard
- Coolant Bottle Assembly
- Safety Chain with Snap Hook, Set of Tools with Wedge
- Operator's Manual (English)
- Standard shipping weight – 26.1 kg

SUPER Accessories

- Refer to Accessories page

SUPER Technical Specification

Spindle	MT2
Tool Holder	19mm (3/4") Weldon
Milling Cutter (Core drill) Ø	max 50 mm (2")
Twist drill Ø	max 23 mm
Countersinking Ø	max 50 mm (2")
Stroke	153 mm (2")
Max depth of cut (Core drill)	50 mm (2")
Voltage	230V, 50Hz, 1Ph
Power consumption (W)	1300
Motor Power (W)	1260
Speeds (rpm)	200 / 400
MFSC (Magnetic Field Shape Control)	Yes
Magnetic clamping force (N) (25mm, Ra=1,25)	12000
Magnet Base Dimensions	90 x 180 x 48 (mm)
ESB (Energy Saving Base)	Yes
MPAC (Magnetic Power Adhesion Control)	Optional
Min. Workpiece Thickness	8 mm (5/16")
Semi-automatic gib backlash adjustment	Yes
Weight	16.5 kg
Product Code	900002



The Most Compact & Ultra Light Weight Magnetic Drilling Machine

CUB from **BroachCutter®** is the most compact and one of the lightest units in the world.

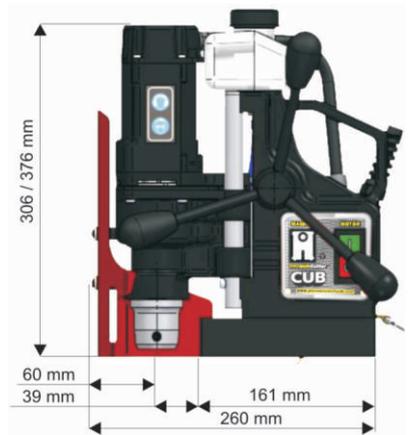
CUB's 8 Distinctive Features

1. Compact design allows to drill very close to vertical surface
2. Dual Guide Bars
3. Overload Protection
4. Single speed, light weight
5. Integrated Gearbox Housing with Slide
6. Magnetic Field Shape Control (MFSC)
7. **MAGNETIC POWER ADHESION CONTROL (Optional)**

MPAC is controlling the adhesive power of the magnet from the moment machine is turned on. If the power of the magnet is not sufficient then the motor would not be allowed to start

8. OVERLOAD PROTECTION

Protects motor from damage due to long-lasting overload. After the overload protection is activated it is necessary to press button START again, whereas the magnetic base remains non-stop under power supply.



CUB Superior Features

- ⊙ Ultra lightweight
 - ⊙ Easy handling
 - ⊙ Maintenance free rail guide system
 - ⊙ Motor overload protection system
- The CUB is equipped with the latest generation of**
- ⊙ Electromagnetic energy saving base (ESB)
 - ⊙ Magnetic field shape control system (MFSC)
 - ⊙ Magnetic power adhesion control (MPAC) module, which detects adhesive force of electromagnetic base and protects both the machine and the operator from work on too thin work piece.
- Ultra compact magnetic drilling machine**
- ⊙ Maximum capacity of 35mm (1-3/8") diameter in 51mm (2") thick material
 - ⊙ 19mm (3/4") Weldon Tool Holder / Speed 350 rpm / Ultra lightweight of 10 kg
 - ⊙ Maintenance free rail guide travel system eliminates the necessity for alignment, maintains accuracy and reduces cutter breakage

CUB Standard Shipping Set

- Magnetic base drilling machine
- Metal Box
- Swarf Shield/Cutter Guard
- Coolant Bottle Assembly
- Safety Chain with Snap Hook
- Allen wrench hex S=4
- Operator's Manual (English)
- Standard shipping weight – 16.7 kg

NEW



Now Available
BroachCutter®
Solid Drills with
3/4" Weldon Shank
for use with
CUB Machines

CUB Technical Specification

Tool Holder	19mm (3/4") Weldon
Milling Cutter (Core drill) Ø	max 35 mm
Countersinking Ø	max 40 mm
Stroke	70 mm
Max depth of cut	50 mm (2")
Voltage	230V, 50Hz, 1Ph
Power consumption (W)	1000
Motor Power (W)	920
Speeds (rpm)	350
Overload production	Yes
MPAC (Magnetic Power Adhesion Control)	Optional
MFSC (Magnetic Field Shape Control)	Yes
ESB (Energy Saving Base)	Yes
Magnetic clamping force (N) (25mm, Ra=1,25)	9500
Magnet Base Dimensions	80 x 160 x 36.5 (mm)
Min. Workpiece Thickness	6 mm
Weight	10 kg
Product Code	900001

CUB Accessories

- Refer to Accessories page

Accessories

BroachCutter® Drilling Machines Accessories

Accessories	TITAN	TRIDENT	SUPER	CUB
Arbors	 <p>Art No.930001 Arbor (MT4) for 31.75mm (1-1/4inch) Weldon Shank Cutters with through coolant arrangement</p>	 <p>Art No.950001 MT3 Arbor with 31.75mm Weldon Bore - Through Spindle Continuous Colling</p>	 <p>Art No.920002 Cooling attachment for twist drilling</p>	-
Pipe Attachments	 <p>Art No.930002 Pipe Attachment for Drilling Holes in Pipes form Dia 150mm to Dia 500mm</p>	 <p>Art No.930002 Pipe Attachment for Drilling Holes in Pipes form Dia 150mm to Dia 500mm</p>	 <p>Art No.920003 Pipe Drilling Attachment for SUPER for Drilling Holes in Pipe Dia 80mm-Dia 250mm & Art No.930002 Dia 150mm-Dia 500mm</p>	 <p>Art No.910001 Pipe Drilling attachment for CUB for Drilling holes in pipes from Dia 80mm to Dia 250mm</p>
Tapping & Drilling Attachments	 <p>Art No.930003 Auto Reverse Tapping Attachment (MT4) for Tapping M8-M20 Art No.930004 Auto Reverse Tapping Attachment (MT4) for Tapping M14-M30</p>	 <p>Art No.950002 Auto Reverse Tapping Attachment (MT3) for Tapping M8-M20</p>	 <p>Solid Drill with 3/4" (19.05mm) Weldon Shank Diameter : 5mm, 6mm, 7mm, 8mm, 9mm & 10mm Art No.1800XX</p>	 <p>Solid Drill with 3/4" (19.05mm) Weldon Shank Diameter : 5mm, 6mm, 7mm, 8mm, 9mm & 10mm Art No.1800XX</p>
Pressurised Coolant System	 <p>Art No.990002 Pressurised Coolant System, used when drilling Horizontally or Upside Down Capacity - 2 Litter</p>	 <p>Art No.990002 Pressurised Coolant System, used when drilling Horizontally or Upside Down Capacity - 2 Litter</p>	 <p>Art No.990002 Pressurised Coolant System, used when drilling Horizontally or Upside Down Capacity - 2 Litter</p>	 <p>Art No.990002 Pressurised Coolant System, used when drilling Horizontally or Upside Down Capacity - 2 Litter</p>
	<p>Power Feed Attachment</p>  <p>Art No.990007 Unique Power Feed Attachment makes drilling easier, especially for Large Diameter Cutters & Large Depth of Cut.</p>	<p>Power Feed Attachment</p>  <p>Art No.990007 Unique Power Feed Attachment makes drilling easier, especially for Large Diameter Cutters & Large Depth of Cut.</p>	<p>VAC-Pad</p>  <p>Art No.990006 Vacuum Pad with Steel Plate, to fix BroachCutter Magnetic Drilling Mcs on Non-Magnetic Material Plates. Required Air : 0.06M³/min. @ 600kPa (2.0CFM @ 85psi)</p>	<p>VAC-Pad</p>  <p>Art No.990006 Vacuum Pad with Steel Plate, to fix BroachCutter Magnetic Drilling Mcs on Non-Magnetic Material Plates. Required Air : 0.06M³/min. @ 600kPa (2.0CFM @ 85psi)</p>

Part No. 160001
Universal Adapter has 19.05mm shank with 3 ball grooves / Pilot Pin Dia. 6.35mm to allow using **BroachCutter®** Annular Cutters on Magnetic Base Drilling Machines having One-Touch Arbors.



Part No. 160003 Universal Adapter same as 160001 however with Pilot Pin Dia. 7.98mm

Part No. 160002
Quick-In Adapter has 19.05mm shank with 4 ball grooves / Pilot Pin Dia. 6.35mm to allow using **BroachCutter®** Annular Cutters on Magnetic Base Drilling Machines having One-Touch Arbors.



Part No. 160004 Quick-In Adapter same as 160002 however with Pilot Pin Dia. 7.98mm

Cutter Extensions : Suitable to be used with Core Drills / Annular Cutters having Weldon Shank of 19.05mm Diameter to increase reach of the Cutter & machine Arbor.

Part No.	Extension Length	Shank Dia.
160007	50mm	19.05mm
160008	75mm	19.05mm
160009	100mm	19.05mm



HSS & TCT Cutters

HSS Annular Cutters

BroachCutter® Annular Cutters are made of **Special Blended HSS Alloy Steel** which results in Edge Sharpness that lasts longer, drilling more holes than standard HSS cutters. Their **Multi-Cut geometry** improves performance of centering as well as removal of chips.

BroachCutter® Shanks

BroachCutter® HSS Annular Cutters are available with WELDON Shank of 19.05mm. These cutters can also be used on Machines using cutters with UNIVERSAL Shank (One touch type) or Quick-In shank by using suitable adapters.

BroachCutter® HSS Cutter use on Workshop Machines

BroachCutter® HSS Annular Cutters are suitable for use also on Workshop drills, CNC Machining centres etc (using BroachCutter Arbors). They eliminate step drilling and holes can be cut up to 3-5 times faster as compared to when using solid drills.

Pilot Pins : BroachCutter® Pilot Pins are made of Specially Hardened Steel. These pins retain their center point sharpness for large number of drilling operations. The pins are ground on CNC machines to give smooth finish and precise circularity over the entire length.

Two - Part Pilot Pins are also available for long cutters.

HSS CUTTER RANGE	Dia. Range	Weldon Shank	Pilot Pin
HSS 50mm (2") Depth of Cut	11mm - 65mm	19.05mm	Dia. 6.35mm x 102mm
HSS 75mm (3") Depth of Cut	11mm - 65mm	19.05mm	Dia. 7.98mm x 130mm
HSS 100mm (4") Depth of Cut	18mm - 60mm	19.05mm	Dia. 7.98mm x 160mm

⊙ **HSS 25mm (1")** Depth of Cut available against order ⊙ Special sizes - Please Inquire



TCT Annular Cutters

BroachCutter® TCT Cutters are made with special-purpose carbide tips for reduced damage of tips and better endurance. These are suitable for cutting holes on various materials with high speed. Multi-cut geometry results in increased chip removal and less resistance.

BroachCutter® Shanks

BroachCutter® TCT Cutters are available with WELDON Shank of 19.05mm as well as 31.75mm (for Cutter dia. >60mm). These cutters can also be used on Machines using cutters with UNIVERSAL Shank (One touch type) or Quick-In shank by using suitable adapters.

BroachCutter® TCT Cutter use on Workshop Machines

BroachCutter® TCT Cutters are suitable for use also on Workshop drills, CNC Machining centres etc (using BroachCutter Arbors). They eliminate step drilling and holes can be cut up to 3-5 times faster as compared to when using solid drills.

Pilot Pins : BroachCutter® Pilot Pins are made of Specially Hardened Steel. These pins retain their center point sharpness for large number of drilling operations. The pins are ground on CNC machines to give smooth finish and precise circularity over the entire length.

Two - Part Pilot Pins are also available for long cutters.

TCT CUTTER RANGE	Dia. Range	Weldon Shank	Pilot Pin
TCT 50mm (2") Depth of Cut	12mm - 17mm	19.05mm	Dia. 6.35mm x 106mm
	18mm - 60mm	19.05mm	Dia. 7.98mm x 108mm
	60mm - 100mm	31.75mm	Dia. 7.98mm x 113mm
TCT 75mm (3") Depth of Cut	18mm - 60mm	19.05mm	Dia. 7.98mm x 130mm
	61mm - 100mm	31.75mm	Dia. 7.98mm x 145mm
TCT 100mm (4") Depth of Cut	18mm - 60mm	19.05mm	Dia. 7.98mm x 160mm
	61mm - 100mm	31.75mm	Dia. 7.98mm x 175mm

⊙ **TCT 35mm** Depth of Cut available against order ⊙ Special sizes - Please Inquire



BroachCutter®

Magnetic Drilling Machines & Cutters

Eliminate Step-Drilling by using Broachcutter® Annular Cutters also on Stationary Drilling Machines with BroachCutter MT Arbors

Part Number	Morse Taper	Shank Diameter mm	Cutter Length mm
141200	2	19.05	50
141300	3	19.05	50
151300	3	19.05	75
161300	3	19.05	100
141400	4	19.05	50
151400	4	19.05	75
161400	4	19.05	100
151500	5	19.05	75
161500	5	19.05	100
141310	3	31.75	50
151310	3	31.75	75
161310	3	31.75	100
141410	4	31.75	50
151410	4	31.75	75
161410	4	31.75	100
151510	5	31.75	75
161510	5	31.75	100

Morse Taper Arbors from MT2 to MT5



Step Drilling can be eliminated by using BroachCutter® Annular Cutters on regular workshop Drilling Machines.

We offer special arbors with "COOLANT-THROUGH" Mechanism to enable usage of BroachCutter® Annular Cutters on **Radial drill machines, Pillar Drills** and **CNC Machining Centers**.

The arbors are available in different Morse tapers & Depths of Cut as shown in the adjoining table to fit various Machines.

New

T.C.T HOLESAWS

5mm Depth of Cut



- » Use BroachCutter® Holesaws for Drilling in Metal Sheet upto 5mm thickness.
- » Diameters 14mm to 100mm in 1mm increment.
- » Special geometry Brazed Tungsten Carbide Tips ensure **Neat, Clean & Burr free holes are drilled in seconds.**
- » Holesaws can be used on electric / Pneumatic Hand Drills and Pillar Drills
- » BroachCutter® Holesaws last long & achieve drilling of hundreds of holes

BroachCutter Drilling Machines Pvt. Ltd.

Delhi Office

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Chennai Office

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Vadodara Office

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Jamnagar Office

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Cuttack Office

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Group Companies

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