

DMA Factory



dma-innotec.ir

What technical problem do our Gravure Industry facing today?

- Line or Text sharpness, not so sharp.
- Ink transfer is not enough, especially metallic ink, such as gold, silver.
- We get more and more shortrun Job, but the printing ready time is long, cost material time.....
- You have to choose other method, such as offset, digital printing or go to use laser engraving.
- The Question: can the electro-mechanical Engraving also solve those kind of problems? Do electro-mechanical Engraving still have future?

Our Concept

- We focus on innovation and breakthrough
- We develop our own hardware, electronic, high speed PCB Boards and Interface, embedded realtime and FPGA Software
- Be Compatible with existing equipment and technology
- Faster, robust, less maintenance

Our Background

- The R&D team of DMA Innotec has his background with many years experience on developing ultra precision machines for the optical and aerospace industries.
- DMA Innotec convert this high end technology into the engraving market.



The New Life for Engraving



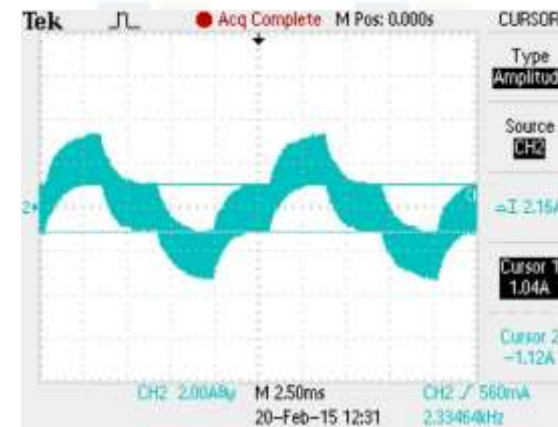
Technical Advantages/Features

- **Hardware - About machine construction**
 - Engineered in Germany
 - Robust and modern construction
 - Solid iron cast base for full body
 - Better protection for key components

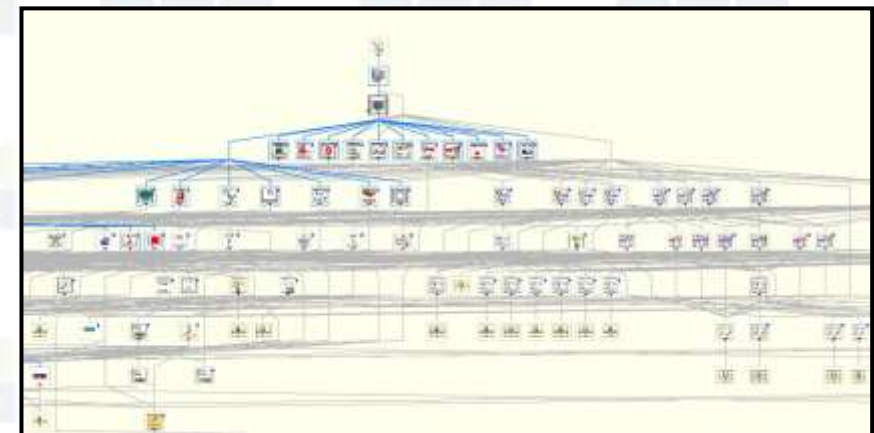


Technical Advantages/Features

- **Electronic**
 - Engineered in Germany
 - Developed on the actual state of high speed signal processing
 - Highest resolution for C & Y axis

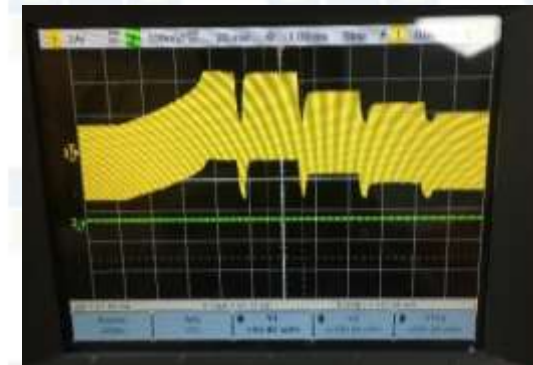
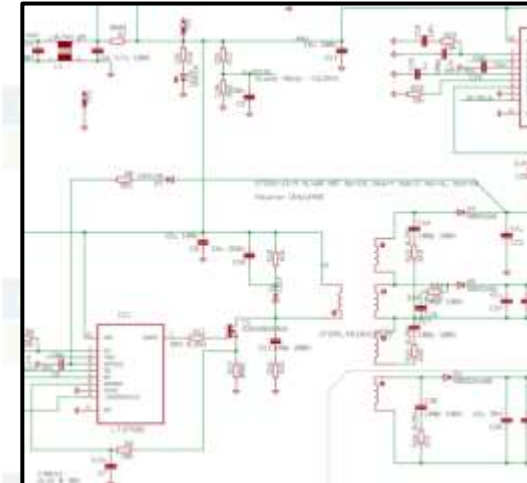


- Engineered in Germany
- Developed with actual software tools for Windows, motion controller
- Embedded Real Time and FPGA programming



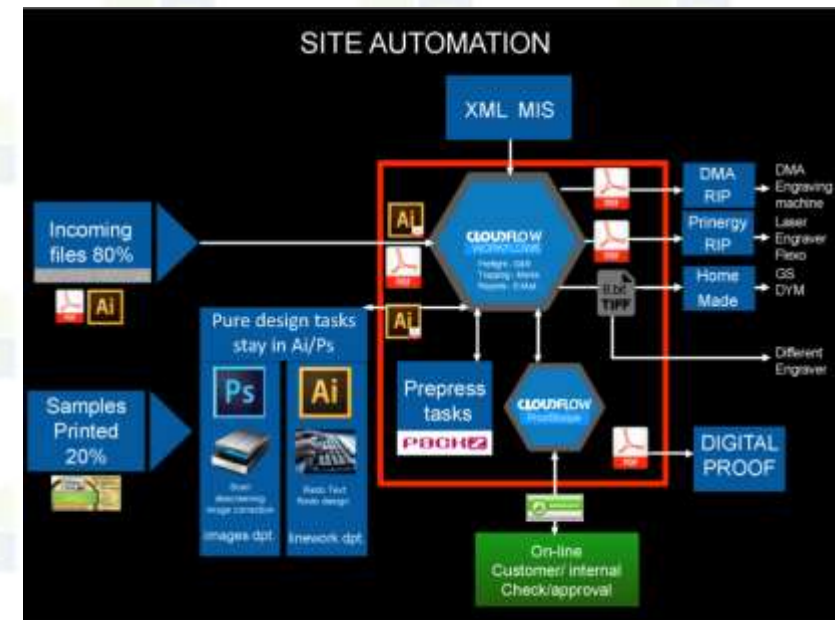
Technical Advantages/Features

- **Full Digital**
 - All electronic control system are full digital
 - Amplifiers, encoders and PCB board are all digital



Technical Advantages/Features

- **PDF-based Workflow**
 - DMA R10 can directly accept PDF-data which is a safe, fast, compact and worldwide approved modern file format
- **Tiff file also possible**
 - Tiff file can be used for easy integration into existing system

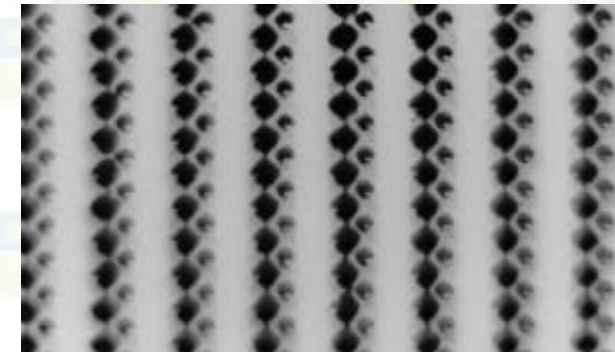


Technical Advantages/Features

- **Prior Screening Technique – WYSWYE**
 - The Prior-Screening technique allows checking the real engraving-data (What You See Is What You Engrave) and retouching before engraving



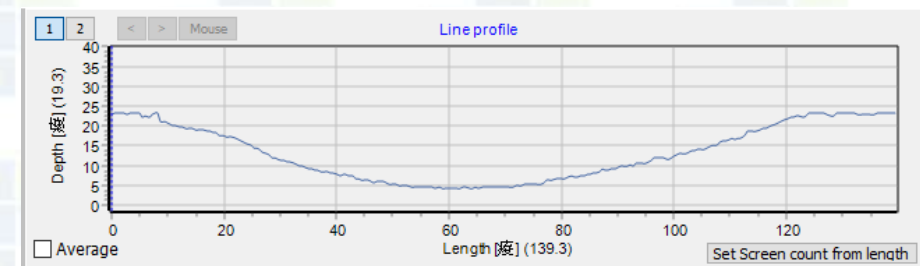
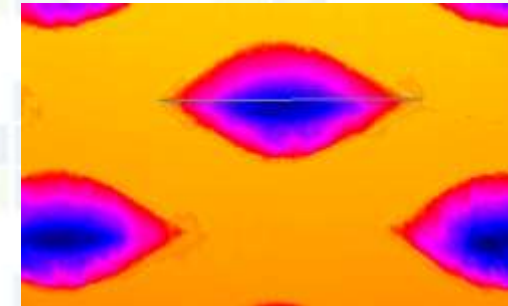
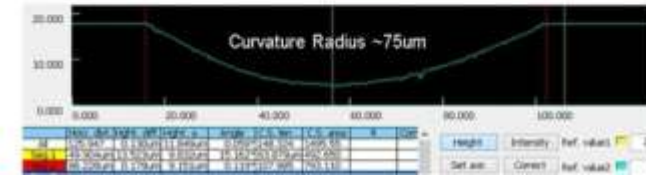
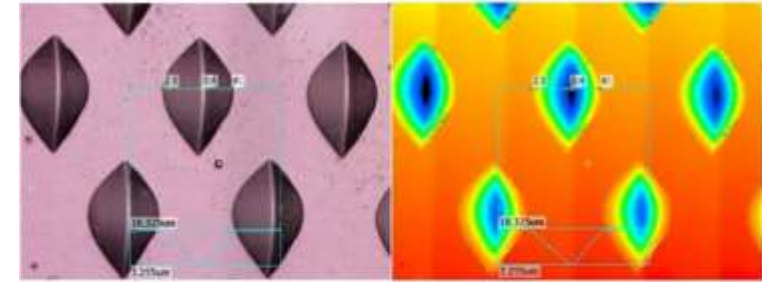
Engraving sample



Printing result

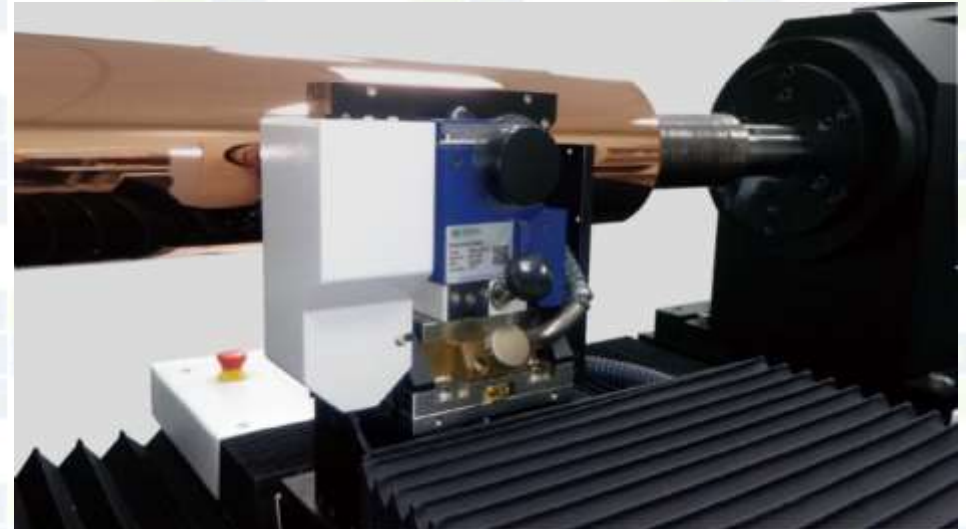
Technical Advantages/Features

- Engraved U Shape Cell
 - With digital control system we engraved the cell with U shape
 - More ink volume
 - Better ink transfer rate
 - Save material and time in the printing process



Technical Advantages/Features

- **Auto Camera:**
 - On-line measuring camera
 - Auto alignment
 - Auto measuring
 - Automatic amplifier adjustment
- **One step engraving!**



Technical Advantages/Features

- **Digital Point to Point Control System**
 - Full digital control without analog signals
 - Cell engraving is precisely controlled by Point-To-Point technique (PTP) and reaches optimal edge



Technical Advantages/Features

- **FFC (First Full Cell)**
 - To engrave full-size cell from the first row/cut with sharp edge results
 - Cell engraving is precisely controlled by Point-To-Point technique (PTP) and reaches optimal edge
- **One Path Technique**
 - Images and small texts with high resolution which can be engraved in one path at 8KHz



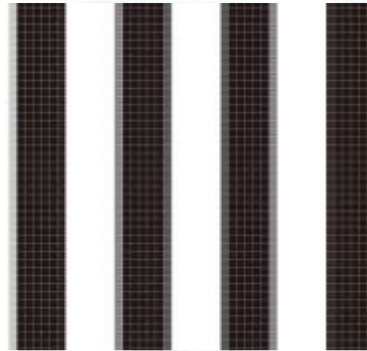
Technical Advantages/Features

- **Optimal Linework Reproduction**

- Through using PDF data
- Through DMA RIP/HDS
- Get the ideal line reproduction



Conventional



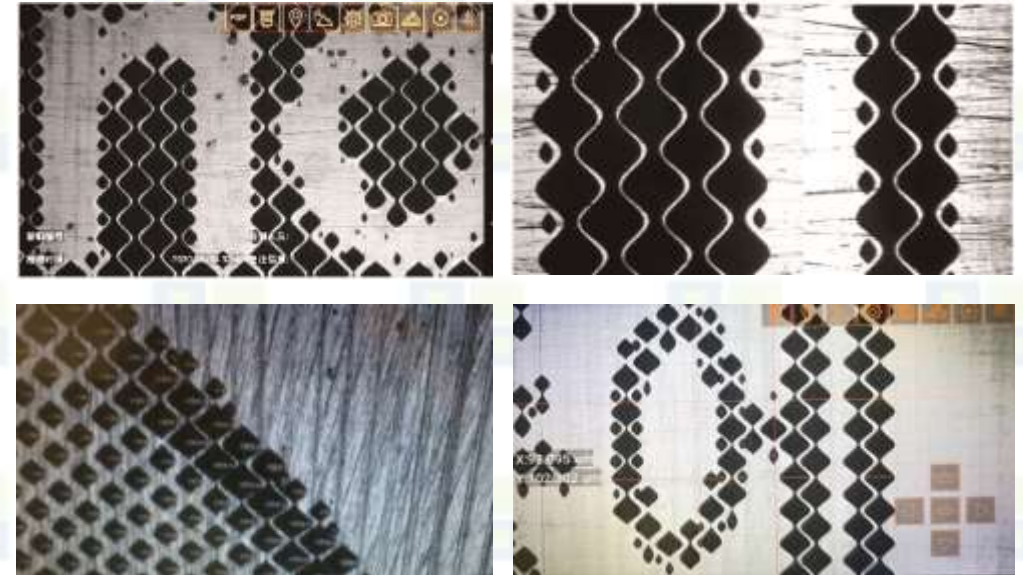
Original



DMA PDF/HDS

Technical Advantages/Features

- **HDS (HORIZONTAL DOT SHIFT)**
 - The horizontal dots are shifted for enhancing the edge effects of vertical elements
 - Engraving frequency max. at 8,000Hz
 - LW and CT engraving are in one path with an automatic identification



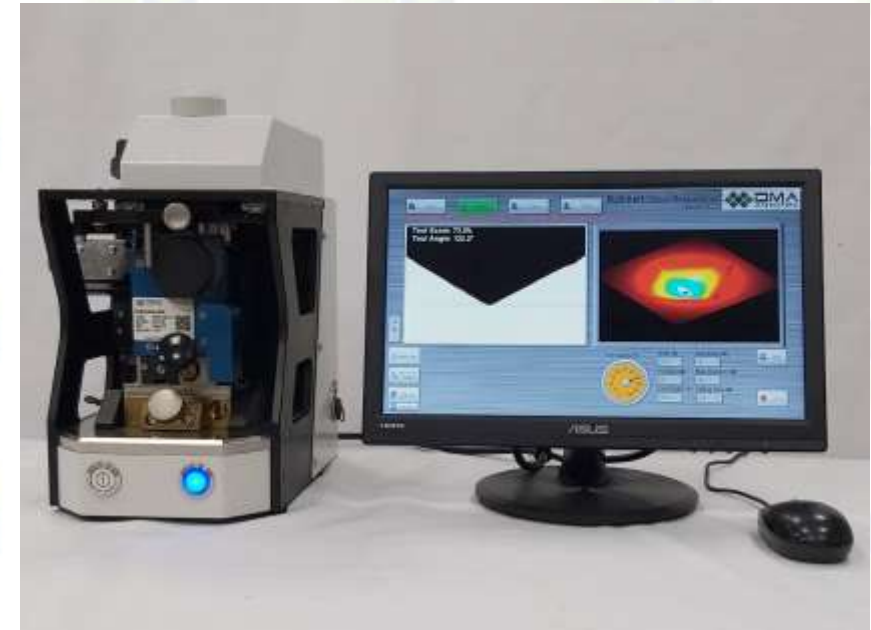
Technical Advantages/Features

- **Qu Check Engraving**
 - Quality checked engraving
 - Check the engraving parameters at the beginning and end of the engraving to ensure the consistency & quality



Technical Advantages/Features

- **Sty-smart**
 - Precisely measure the angle of stylus
 - Detect the wear of stylus
 - Easily adjust the position of sliding shoes
 - Store measured stylus angle for volume oriented test cut.



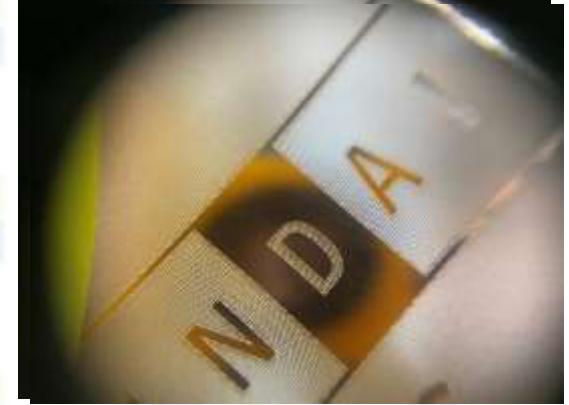
Outline master



80/0



80/4



Products

- **DMA_R16**



Standard Data_R10-16

Model No.

DMA R10-16

Dimension (LxWxH)

3620mm x 1120mm x 1560mm

Total Weight

Approx. 4100kg

Recom. Space

4500mm x 2500mm x 2200mm

Hollow Cylinder

Face length

200mm-1600mm

Circumference

320mm-1400mm

Shaft Cylinder

Face Length

200mm-1200mm

Length incl. Shafts

300mm-1600mm

Circumference

320mm-1400mm

Cylinder Weight

Max. 200kg

Products

- **DMA_R10-22**



Standard Data_R10-22/22A

Model No.	DMA R10-22	DMA R10-22A (Auto. Plating Line)
Dimension (LxWxH)	5200mm x 1300mm x 1680mm	5200mm x 1300mm x 1680mm
Total Weight	approx. 6200kg	approx. 6600kg
Recom. Space	6100mm x 2800mm x 2250mm	6100mm x 2800mm x 2250mm
Hollow Cylinder		
Face Length	200-2200mm	500-2200mm
Circumference	400-1400mm	400-1400mm
Shaft Cylinder		
Face Length	200-2200mm	500-2200mm
Length incl. Shafts	400-2200mm	600-2200mm
Circumference	400-1400mm	400-1400mm
Cylinder Weight	max. 400kg	max. 400kg

Products

- **DMA_R10-35 Recon**



Standard Data_R10-35 Recon

Model No.

DMA R10-35

Dimension (LxWxH)

7000mm x 900mm x 1500mm (Depend on base length)

Total Weight

Approx. 8000kg

Recom. Space

9000mm x 2100mm x 3000mm (Depend on base length)

Hollow Cylinder

Face length

Max. 3500mm (Depend on base length)

Circumference

Max. 2200mm

Shaft Cylinder

Face Length

Max. 3500mm (Depend on base length)

Length incl. Shafts

Max. 4200mm

Circumference

Max. 2200mm

Cylinder Weight

Max. 300kg/ 500kg

DRUPA Exhibition



DRUPA Exhibition



DRUPA Exhibition

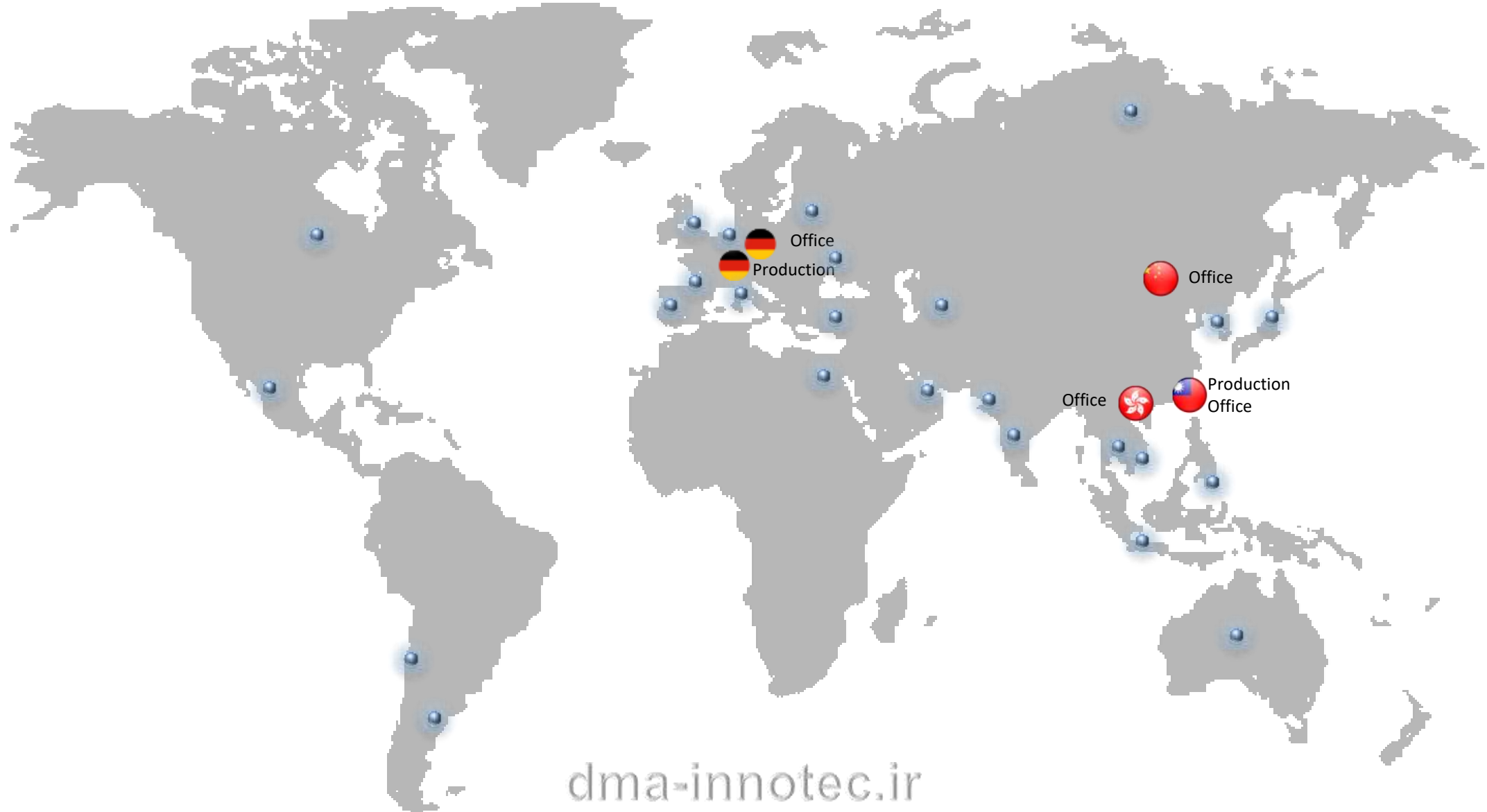




- D – Dynamic
 - M – Motivated
 - A – Alliance

We Make the Impossible POSSIBLE

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Thanks for your attention

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