

## Standardised Assembly Cells



### DCAM

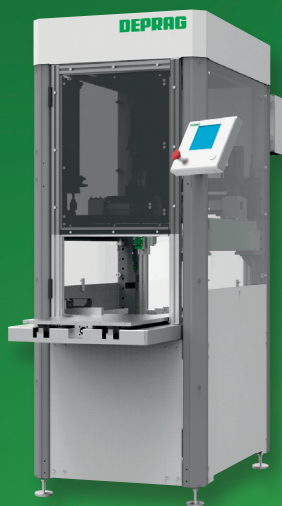
#### DEPRAG **COMPACT-ASSEMBLY-MODULE**

The modular and flexible platform concept in connection with the freely programmable axes makes our DCAM versatile for various assembly and installation tasks.

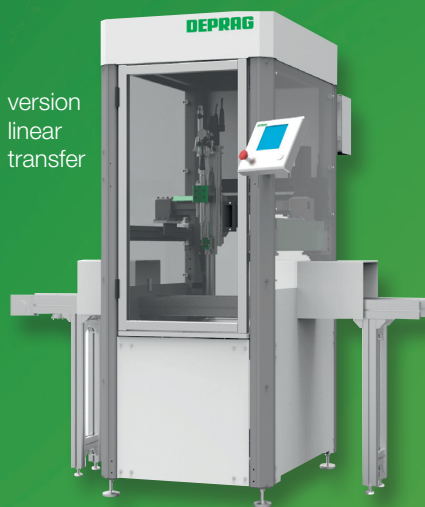




version  
light curtain



version  
sliding door



version  
linear  
transfer



version  
rotary  
indexing  
table

## ADVANTAGES

The DCAM offer a compact working platform. The modular and flexible platform concept in connection with the freely programmable axes makes it versatile for various assembly and installation tasks.

Worldwide, are hundreds of DCAM in operation for the assembly of cell phones. They are either manually loaded by an operator or reloaded through an automatic feeding system

A DCAM combines efficiency with the highest possible process reliability. If the order volume rises, productivity can easily be increased by employing further operators or extensions. Should production requirements change, then a DCAM can be refitted within a very short time.

- **Short cycle times**
- **Compact design**
- **Highly durable**
- **Short design and delivery times**
- **Integrated positioning and sequence control**

**A DCAM assembly platform is a good way to stay on the road to success with your production!**

## COMPONENTS

### Machine base

The powder-coated steel frame of the basic structure of the machine cell is warp-resistance welded ensuring top stability and durability of the platform. For production and operator safety it is housed within a height-adjustable working table. The housing also minimises the sound level and protects against dirt infiltration.

### Portal axis system

The assembly cell is equipped with top quality axis modules consisting of linear axes with gear belt drive and a Z-axis with ball screw. The axes can be driven either by the highly developed 3 phase step motors or servo motors. Our axis technology is specially designed for the typical mass and torque loads experienced during screw processing which is an indication of the high functional safety and customary reliability of this assembly cell. Our engineers were also successful in their goal of designing the axes within the smallest possible area but with the largest possible range.

### Controller

DPU110/DPU210 - This high performance controller can control axis systems with up to three axes (DPU110) as well as axis systems with more than three axes (DPU210). It can be connected to a data bank as well as a product data acquisition or ERP system (see brochure D3350E).

### Part handling

The feeding of components can be optionally either manual with moving carrier plate or rotary indexing table or fully automatic with a linear transfer system.

### Safety system

The module is available with sliding door or light curtain safety measures, depending on application.

**DEPRAG Screwdriving Function Module** (see brochure D3310E)

**DEPRAG Feeding Systems** (see brochure D3830E)

## APPLICATION AREAS OF THE DCAM

The DCAM is an ideal working platform for an application where several processing points (or tracks) must be quickly and precisely reached. It is particularly suited for screwdriving assembly. Equipped with DEPRAG screwdriving function modules and screwdriver spindles of the series MINIMAT, MINIMAT-EC and MINIMAT-EC-Servo as well as suitable feeding systems any screwdriving task can be completed with top processing reliability. The advantage of using DEPRAG is that we can offer all system solutions from a single source, each developed for one another and including comprehensive service.

The compact, high grade flexible assembly platforms from DEPRAG SCHULZ GMBH u. CO are also suitable for the application of labels or badges, for presence, location or function sensors, greasing, inserting or marking.

**Screw assembly** – realised by a standardised screwdriving function module with screwdriver spindles in the most varied of designs and if required, measurement technology in combination with suitable feeding system (details see brochure D3830E).

**Application** of labels or badges via vacuum or magnet, force-fit or form-fit grippers.

**Checking** presence, load, temperature, location, function, etc. realised by contact or contact-less sensors with corresponding analysis electronics.

**Greasing** via the dosing valve with cannula attached to the Z-axes in combination with a greasing supply.

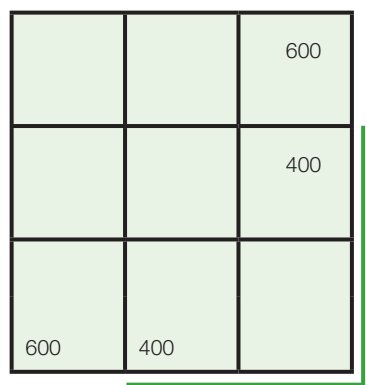
**Insertion** with gripper or clamp unit, vacuum suction etc. in combination with corresponding feeding system such as tape on reel feeder.

**Marking** with stamping, labelling, marking or pad-printing procedure etc.

Technical data DCAM			
	Type	DCAM-C1	DCAM-C2
Dimensions (WxDxH) with controller (DCOS)	mm	800x1100x2100	1000x1300x2100
Controller	mm	DPU110/DPU210	DPU110/DPU210
Programming language		DEPRAG robot programming language	
Inputs/outputs		32/32	32/32
Power supply	V/Hz	400/50 (115/60)	400/50 (115/60)
Power consumption max.	VA	1200	1200
Number of axes	kg	2	2
Effective distance of movement (X/Y/Z)	mm	400x400x160	600x600x160
Speed of movement (X/Y)	m/sec	1,5	1,5/1,5
Accuracy (X/Y)	mm	± 0.05	± 0.05 / ± 0.05
Maximum weight capacity	kg	15	15
Maximum acceleration under load (X/Y)	m/sec <sup>2</sup>	5	5/5

The DCAM is also available with a controller for servo motors.

## WORK AREAS OF THE DCAM



The standardised DCAM is available in two versions:

Version A offers a maximum area of use for X- and Y- axes of 400 mm, and for the Z-axis 160 mm.

Version B offers a maximum area of use for the X- and Y-axes of 600 mm, and for the Z-axis 160 mm.



Supplier in the Netherlands for DEPRAG Equipment.  
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