



Screwdriving technology

Automation

Air motors

Air tools

DEPRAG

**Standardised
Assembly Cells**

DCAM

DEPRAG COMPACT-ASSEMBLY-MODULE

for your automated screwdriving and assembly tasks

- short cycle times
- compact design
- top reliability
- fast development and delivery times
- integrated controller

Compact and space-saving in the well-known DEPRAG design – the attractive new DCAM exhibits high functionality and our customary reliability.

The customer benefits from our established technology with well-designed standard components.

The modular platform concept means that it is especially intended for the processing of the most varied of assembly and production tasks.



ADVANTAGES

The DCAM is a compact work platform, combining efficiency with the best possible processing reliability. If production tasks alter e.g. due to high production rates then the DCAM can be quickly adapted.

Standardised working ranges of up to max. 600x600 mm with two or three freely programmable axis are available as standard.

Additionally the optimally adapted step motor or optional servo motor can be used. The DCAM has a DEPRAG control and operating unit - DPU with touch panel. Processing programs are generated on the easy-to-operate editor and can also be set offline via a PC.

Advantages when using a DCAM:

- **Rationalisation** e.g. due to automatic part feeding, continuous working procedures, short cycle times, identical work sequences.
- **Quality** assurance due to controlled automation and comprehensive documentation options for the assembly processes.
- **Flexibility** due to the modular and open layout for fast conversion to use for different applications and the free programmability of the X-Y- and Z-axes.
- **Availability** – one stop shop – direct from DEPRAG.

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.



DPU100

■ 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 axes 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

DPU100/DPU200 - This high performance controller can control axis systems with up to three axes. It can be connected to a data bank as well as a product data acquisition or ERP system.

Details → brochure D3350E.



DPU200

■ 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** (→ brochure D3310E)

■ **DEPRAG Feeding Systems** (→ 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 screw feeders any screwdriving task can be completed with top processing reliability. The advantages of using DEPRAG is that we are a one stop shop and can provide all system solutions from one location, 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 screw feeder. Details → brochure D 3830E.

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-axis 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

	Type	DCAM-C1	DCAM-C2
Dimensions (WxDxH) with controller (DCOS)	mm / in.	800x1100x2100 / 31.2x42.9x81.9	1000x1300x2100 / 39x50.7x81.9
Controller		DPU100/DPU200	DPU100/DPU200
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
Breaker capacity output	A	0.5	0.5
Number of axes		2	2
Effective distance of movement (X/Y/Z)	mm / in.	400x400x160 / 15.6x15.6x6.24	600x600x160 / 23.4x23.4x6.24
Speed of movement (X/Y)	m/sec / ft./sec	1.5 / 4.9	1.5/1.5 / 4.9/4.9
Accuracy (X/Y)	mm / in.	± 0.05 / ± 0.002	± 0.05/± 0.05 / ± 0.002/± 0.002
Maximum weight capacity	kg / lbs.	15 / 33	15 / 33
Maximum acceleration under load (X/Y)	m/sec ² / ft/sec	5 / 16.4	5/5 / 16.4/16.4

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

WORK AREAS OF THE DCAM

		600
		400
600	400	

The new 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.

APPLICATION TYPES



version light curtain



version sliding door



version linear transfer



version rotary indexing table

DEPRAG

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