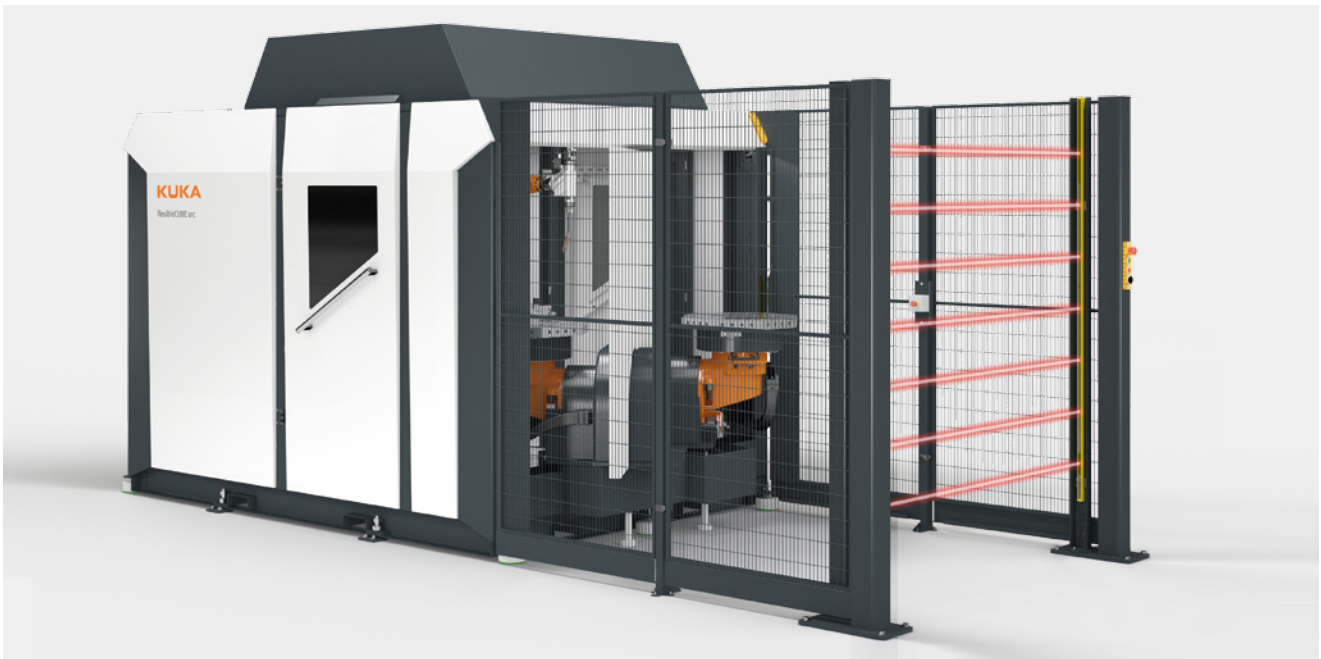


## Joining Solutions\_ **KUKA flexibleCUBE arc C-DK 05** with dual tilt-turn positioner D-DK-400



The **KUKA flexibleCUBE arc** is the standardized compact welding cell from KUKA Industries. With its modular design and wide range of automation options, the **KUKA flexibleCUBE arc** is the ideal partner for a dynamic manufacturing environment.

This cell variant is equipped with a dual tilt-turn positioner with a payload capacity of 400 kg on each side. The working area on each side is approx. 700 mm × 800 mm (D × H). The horizontal tilting axis can be pivoted from 0 to 90°, while the vertical rotational axis can be turned though ± 185°.

The dual tilt-turn positioner can be fitted with a work plate with a system pattern of Ø16 mm holes, with a spacing of 50 mm × 50 mm, enabling the use of a Demmeler-type clamping system. Simple clamping assemblies can thus be mounted quickly and safely on the positioner.

The operator loads and unloads one side of the dual tilt-turn positioner while the robot simultaneously carries out welding inside the cell. Once the operator has issued the enable signal and the welding operation has been completed, the table is automatically turned in approx. 4 seconds and the next workpiece is welded. A light barrier safeguards the loading area during rotation of the positioner and guarantees protection of the operator.

The high positioning flexibility of the tilt-turn positioner used makes this cell variant particularly suitable for more complex workpieces which have to be repositioned several times during the welding process due to the position and accessibility of the weld seams. By using two tilt-turn positioners, it is possible to load and unload parts without interrupting the machining process. This cell variant is thus particularly suitable for medium to high production volumes. Furthermore, the automatic rotation of the positioner creates the necessary conditions for the operation of multiple machines.

### Scope of supply consists of

- Cell on base plate with two maintenance gates
- KUKA robot
- Robot controller KR C4 small size 2
- KUKA ArcTech welding software
- Automatic dual tilt-turn positioner
- Welding equipment with 350 A power rating
- Robotic wire feed with dress package
- Robotic welding torch with collision protection device
- KUKA KAC (KUKA Application Control) cell controller
- Central infeed point
- Human-machine interface

## Joining Solutions\_KUKA flexibleCUBE arc C-DK 05 with dual tilt-turn positioner D-DK 400

### Technical data

#### Dual tilt-turn positioner D-DK 400

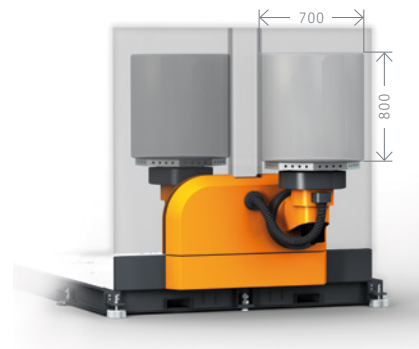
|  |                      |
|--|----------------------|
| Rated payload (per side)                             | 400 kg               |
| Permissible mass moment of inertia (tilting axis)    | 170 kgm <sup>2</sup> |
| Permissible mass moment of inertia (rotational axis) | 64 kgm <sup>2</sup>  |
| Permissible load moment (tilting axis)               | 1,900 Nm             |
| Permissible load moment (rotational axis)            | 750 Nm               |
| Turning range (tilting axis)                         | 0 to 90°             |
| Turning range (rotational axis)                      | ± 185°               |
| Rotational velocity (tilting axis)                   | 94.5 °/s             |
| Rotational velocity (rotational axis)                | 126 °/s              |
| Turning range (table)                                | 0 to 180°            |
| Turning time (table)                                 | 4 s                  |

#### Main values of the cell

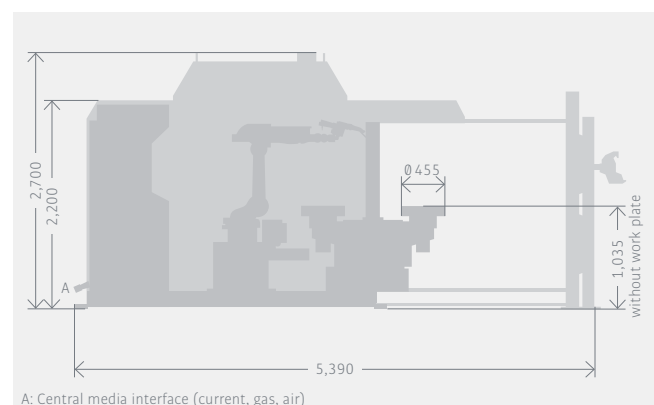
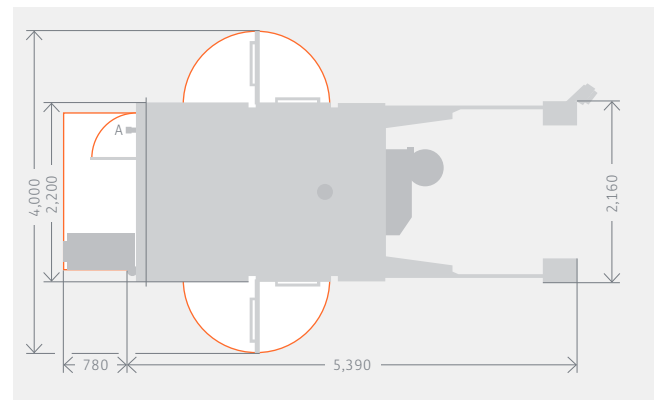
|                   |           |
|-------------------|-----------|
| Ratings (typical) | 39 kVA    |
| Noise generation  | 78 dB     |
| Total weight      | ~4,000 kg |

### Options

- Welding equipment from various renowned manufacturers with power ratings of up to 500 A
- Aluminum welding
- TCP control station
- Touch Sense function
- Torch cleaning station
- Fume extraction with/without extraction unit
- Parameter control software
- Remote maintenance
- Additional consumables interfaces on the positioner



Dual tilt-turn positioner D-DK 400 – work envelope



A: Central media interface (current, gas, air)

Cell layout

For further information please contact us at  
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