





## **Handling and Robotic**





## **Handling and Robotic**

- Made in Germany
- Wide ranging
- Powerful
- Varied
- Tailor made
- Get the maximum out
- All from one source











Robotic feeding of a door leaf machining



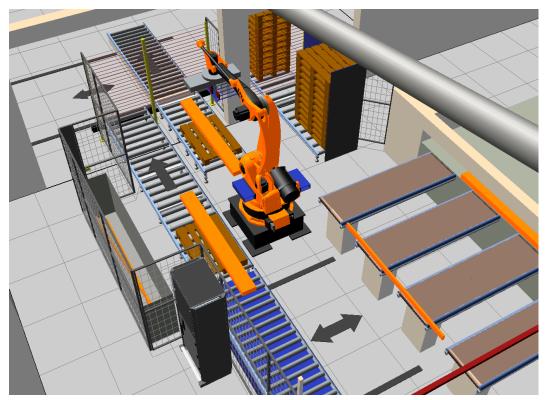




Portals for stocking of insulation boards







#### **Robot and linear handling**

Exact simulation by specially trained KRAFT technicians in advance, avoids downtime and rework.







### **Robot and linear handling**

 Solutions were realized exactly according to planning specifications.





## Criteria at the application solution

- Load
- Range and flexibility in working area
- Cycle time
- Technical use
- Availability through life time
- Energy costs
- Maintenance costs
- Running costs
- Investment security



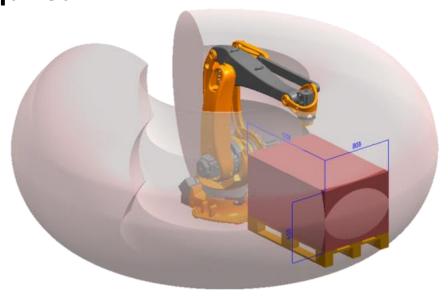




## Work envelope and floor space required

#### **Robot**

- Freely positionable
- Access from all sites
- Working range of 360°
- Complex movements possible
- Minimal space for positioning
- Adjustable over platforms and consoles
- Supporting pillars or disturbing contours are no knock-out criterion
- Accessible from the top



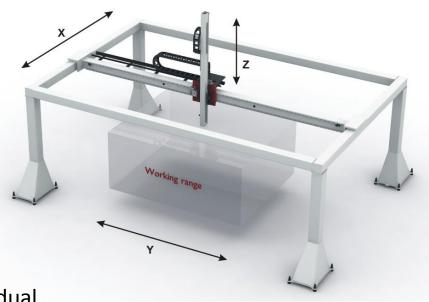




## Work envelope and floor space required

#### **Linear handling (Portals)**

- Long ranges
- No disturbing contours in building room possible
- Minimum of floor requirement, because all axis are mounted overhead
- Telescopic, shear
- Custom-built heights available in all versions
- It is possible to customize according to individual requirements









## **Stiffness / Precision**

#### **Robot & linear handling**

- The precision of positioning repetition for robots is up to +/- 0,06 mm depending on model
- Very stiff robot kinematics for damping and compensation of vibrations
- With path control soft and jerkyless movements are made possible
- Also for portals a high stiffness is reached by using a sturdy construction
- Here the precision of positioning is about +/- 0,2 mm depending on model









## Flexibility through combination

#### **Robot & linear handling**

- Positionable open in the room
- More fully interpolated additional axes are easily possible
- Two or more carriers possible
- Floor mounting or hanging systems possible
- Palletizing, mounting, commissioning, labeling, etc.
- Edge processing
- Turning or spinning of parts









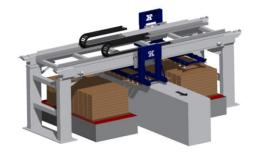
## Speed





#### Robot

- Highspeed Robot 120 cycles/min. depending on load and travel
- Standard Robot 20 cycles/min. depending on load and travel
- Heavy duty Robot 12 cycles/min. depending on load and travel



#### **Linear handling (Portals)**

- 28 cycles/min. (2x14) with tandem portal, depending on load and travel
- Travel speed up to 200 m/min.
- Acceleration up to 10 m/s²





## **Cleanliness and quality**

#### **Robot and linear handling (Portals)**

- Closed steering avoids contamination and guarantees a long running time
- Closed gears and steerings are reliable against dirt and dust
- Wipers and integrated lubrication systems provide clean units
- High availability









## **Operating and integration**

#### **Robot or linear handling (Portals)**

- We incorporate robots and portals into existing as well as into new installations
- Via operating panel with a graphic HMI surface our machines can be controlled without problems
- Connection into existing steerings
- Interconnection with master computer
- Furthermore nearly all bus systems are adaptable (Profibus DP; Profinet; Ethercat; Ethernet; Interbus; Lightbus; DeviceNet; and others ...)



# Specialist for individual mechanical engineering





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