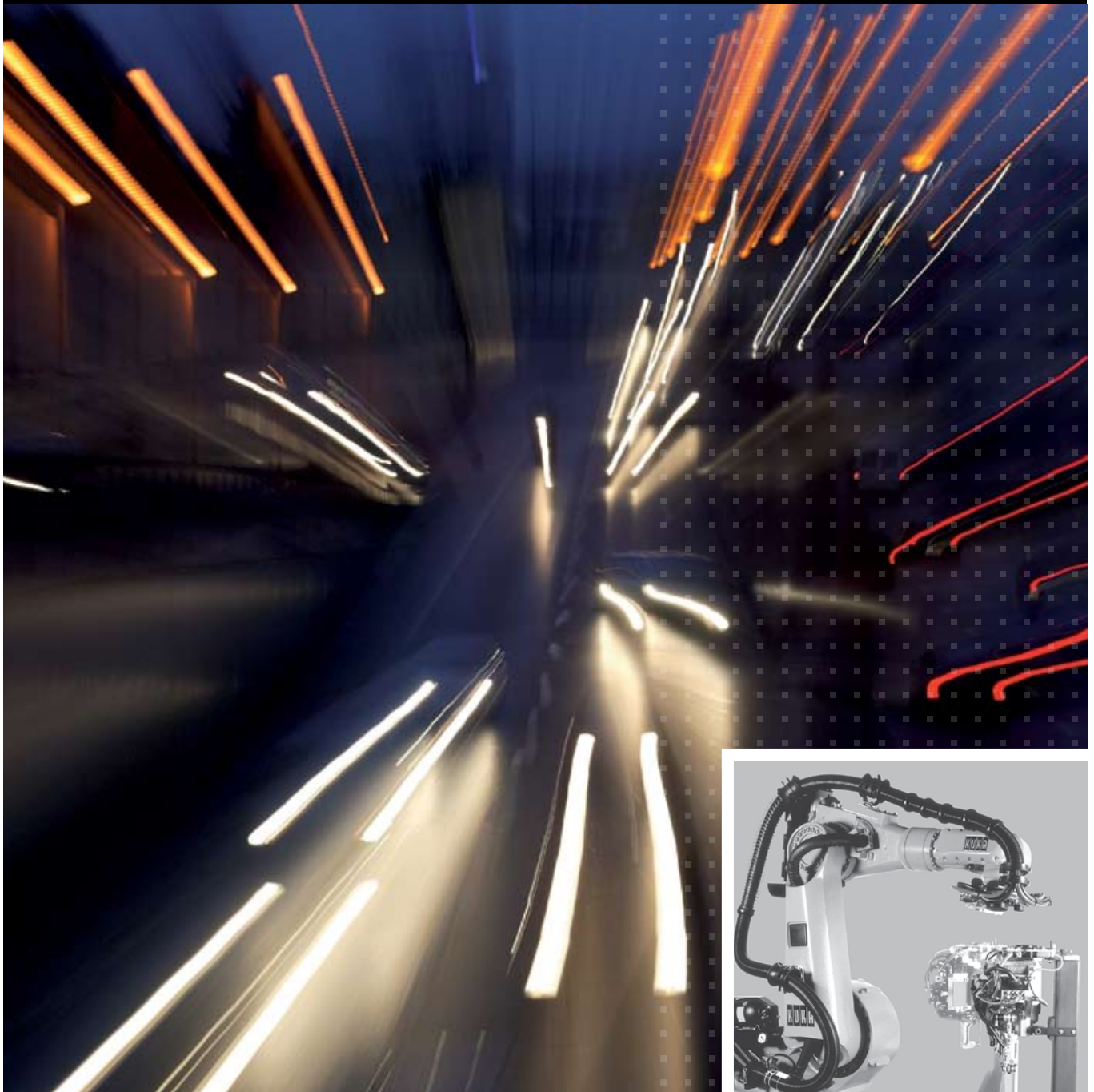


KUKA

KUKA Automotive Solutions

KS TOOL CHANGER 210



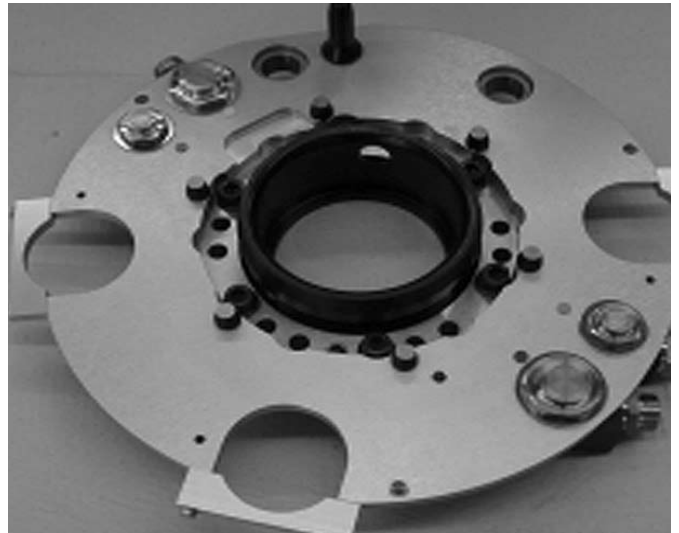
■ **KS TOOL CHANGER 210**

The KS Tool Changer is designed for the automated changing of tools and workpiece carriers on the robot and is rated for a payload of up to 210 dN / 500 dN.

The KS Tool Changer allows the transmission of cooling water, compressed air, welding current and signals via various bus systems or parallel inputs and outputs (I/Os).



ROBOT SIDE KWE



TOOL SIDE KWS

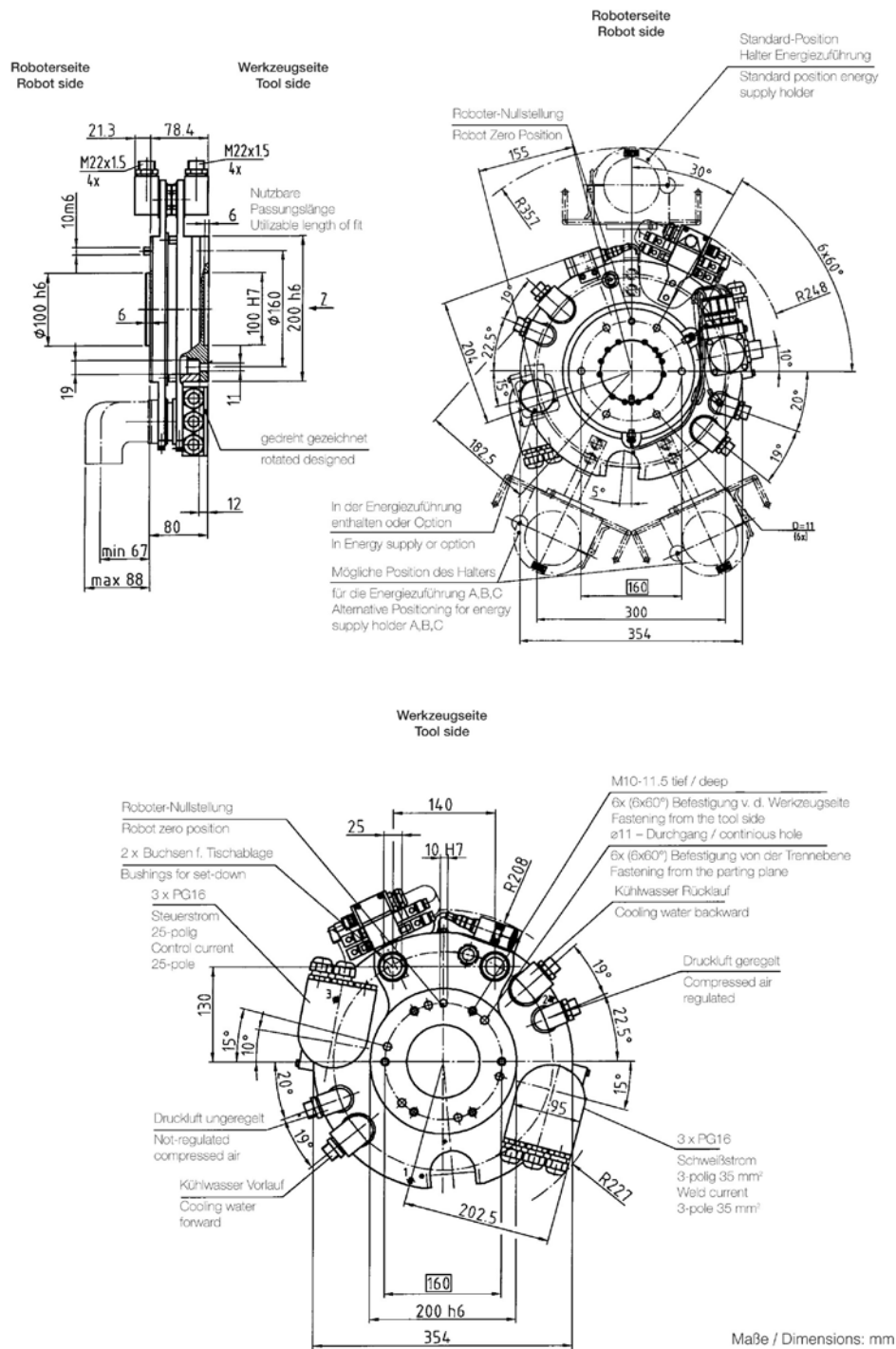
DEVICE	KWE 210 (ROBOT SIDE)	KWS 210 (TOOL SIDE)
■ Connection flange	ISO 9409-1-160-6-M10	ISO 9409-1-160-6-M10
■ Nominal load	210 dN	210 dN
■ Operating temperature	Min. 10° C / max. 60° C	Min. 10° C / max. 60° C
■ IP-code KWE and KWS coupled KWE and KWS uncoupled	IP 64 IP 64 / Longitudinally waterproof along the contacts	IP 64 IP 64 / Longitudinally waterproof along the contacts

MAIN DIMENSIONS / WEIGHT	KWE 210 (ROBOT SIDE)	KWS 210 (TOOL SIDE)
■ Diameter (without hose- and cable connections)	ø 354 mm	ø 354 mm
■ Overall height (KWE / KWS coupled)	80 mm	80 mm
■ Weight spot welding version (2x compressed air, 2x cooling water, 1x control current, 1x weld current)	11.1 dN	8.7 dN
■ Weight handling version (1x compressed air, 1x control current)	10.2 dN	7.5 dN

MEDIA TRANSFER	KWE 210 (ROBOT SIDE)	KWS 210 (TOOL SIDE)
COOLING WATER		
■ ND coupling	12 mm	12 mm
■ Supply pressure	Max. 7×10^3 hPa (7 bar)	Max. 7×10^3 hPa (7 bar)
■ Particle size	$\leq 50 \mu\text{m}$	$\leq 50 \mu\text{m}$
■ Connection	1/2 " BSP Internal thread	1/2 " BSP Internal thread
COMPRESSED AIR		
■ ND coupling	8 mm	8 mm
■ Supply pressure	Min. 4.5×10^3 hPa (4.5 bar) max. 10×10^3 hPa (10 bar)	Min. 4.5×10^3 hPa (4.5 bar) max. 10×10^3 hPa (10 bar)
■ Particle size	$\leq 50 \mu\text{m}$	$\leq 50 \mu\text{m}$
■ Connection	1/2 " BSP Internal thread	1/2 " BSP Internal thread
CONTROL CURRENT		
■ Kind of signals	Parallel I/O's or INTERBUS, Profibus / other control signals or systems on request	Parallel I/O's or INTERBUS, Profibus / other control signals or systems on request
■ Number of poles	24 + PE or option 36 + PE	24 + PE or option 36 + PE
■ Needed signals for change function	3 Inputs	2 Outputs
■ Rated voltage	250 V Insolation coordination according IEC 664-1 / DIN VDE 0110-1	250 V Insolation coordination according IEC 664-1 / DIN VDE 0110-1
■ Rated current	7 A at 25°C / 1 mm ² resp. 0.75 mm ²	7 A at 25°C / 1 mm ² resp. 0.75 mm ²
■ Interface	Crimp contacts	Crimp contacts
WELD CURRENT		
■ Number of poles	2 + PE	2 + PE
■ Nominal voltage	630 V Insolation coordination according IEC 664-1 / DIN VDE 0110-1	630 V Insolation coordination according IEC 664-1 / DIN VDE 0110-1
■ Continuous current	150 A	150 A
■ Frequency	Normal frequency 50 Hz Medium frequency 1000 Hz	Normal frequency 50 Hz Medium frequency 1000 Hz
■ Interface	Crimp contacts	Crimp contacts
■ Availability *	MTTR: 20 min / MTBF: 4000 h	MTTR: 20 min / MTBF: 4000 h

* in accordance with specification

■ **KS TOOL CHANGER 210**



Specifications regarding the quality and usability of the products do not constitute a warranty of properties. They are intended to serve informative purposes only. Solely the respective contract of sale shall be binding in respect of the extent of our supplies and services.

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