

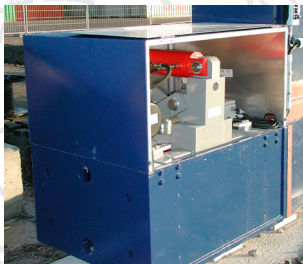
Industrial Brakes · Thrusters · Pressure Oil Pumps · Couplings · Hydraulic Buffers · Cellular Buffers  
Rail Pliers · Sheaves · Hook Blocks · Crane Rail Wheels · Rail Clamps · Repairation · Service

## Container bridge from Kranwerke Mannheim AG for KALAG Karlsruhe



### KoRo IBS supplied parts

- ➔ Rail clamps
- ➔ Hydraulic buffer
- ➔ Disk brakes
- ➔ electro-hydraulic thrusters
- ➔ Brake disk with hub
- ➔ Rope rollers with sprocket wheel



### Technical specifications:

Load on the ropes .....	55,000 kg
Load on the spreader .....	40,000 kg
Gauge .....	32.8 m
Water side jib .....	approximately 30.0 m
Land side jib .....	approximately 22.0 m
Beam length .....	approximately 84.8 m
Water side jib, useable .....	26.0 m
Land side jib, useable .....	18.0 m
Stroke height above OKS to UK spreader....	16.5 m
Lowering depth below OKS .....	9.5 m
Total stroke height .....	26.0 m
Gantry clearance height .....	24.9 m
Total width above puffer .....	approximately 30.0 m
Crane rail .....	A 100
Length of carriageway .....	approximately 360 m
Number of water side running wheels .....	16 ×
Number of land side running wheels .....	16 ×
Wheel pressures .....	max. 300 kN

### 3.1 Basis for calculation

#### Steel construction as per DIN 15018 part 1

For piece goods	H2 – B4
Container service	H3 – B5
Spreader	H2 – B4

#### Engines as per DIN 15020 and FEM, SEKTION I, cranes

Lifting device for piece goods service	M5 (T5-L2; 3200 – 6300 h)
Lifting device for container service	M7 (T6-L3; 6300 – 12500 h)
Rope drives as per DIN 15020 sheet 1	identical classification
Trolley travelling winch	M7 (T6-L3; 6300 – 12500 h)
Straddle carrier	M6 (T5-L3; 3200 – 6300 h)
Slewing gear	M5 (T5-L2; 3200 – 6300 h)
Assembly crane	engine group M2
EOT hoist for crane	engine group M2

#### Current type

Power supply	20 kV, 50 Hz
Operating voltage	400 V, AC
Control voltage	230 V, AC and
Control voltage (PLC)	24 V, DC

### 3.1.1. Operating speeds

Lifting device	up to 170 kN on the ropes v = 3.0 - 60 m/min. up to 500 kN on the ropes v = 1.5 - 0 m/min.
Rotating	n = 0,2 - 1,6 min <sup>-1</sup>
Trolley travel	acceleration time 6.0 sec. v = 10 - 120 m/min.
Straddle travel	acceleration time 8.0 sec. v = 4 - 80 m/min.

### 3.1.2. Motor data

Lifting device	DC 265/280.0 kW, 60/40 % ED, 1400 / 2800 min <sup>-1</sup> .
Rotating	AC 1x 5.5 kW, 100 % ED, 1750 min <sup>-1</sup>
Trolley travel	AC 6x 18.0 kW, 100 % ED, 1750 min <sup>-1</sup>
Straddle travel	AC 22x 13.0 kW, 100 % ED, 1750 min <sup>-1</sup>

All the drives listed under 3.1.2. as cage motors with frequency converter control and energy recuperation, DC lifting gear motor in the lifting device with rectifier control.