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CATALOGUE

KARA Welding Column & Booms



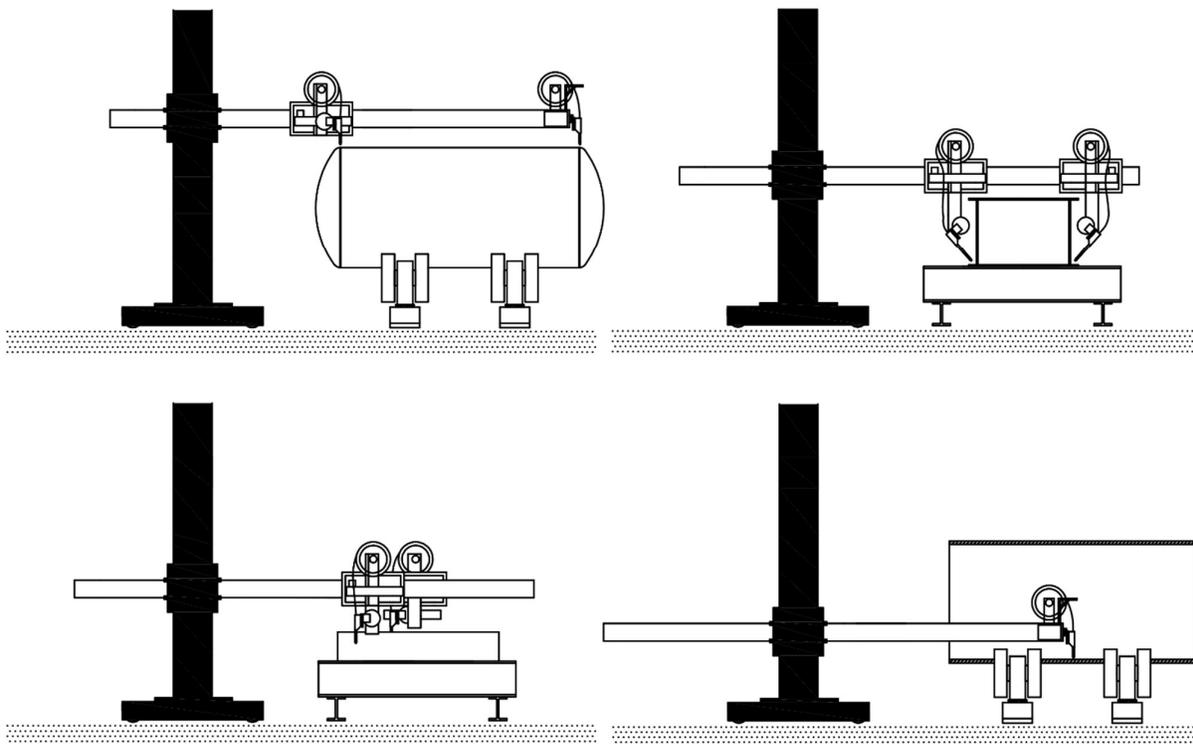


KCBWM



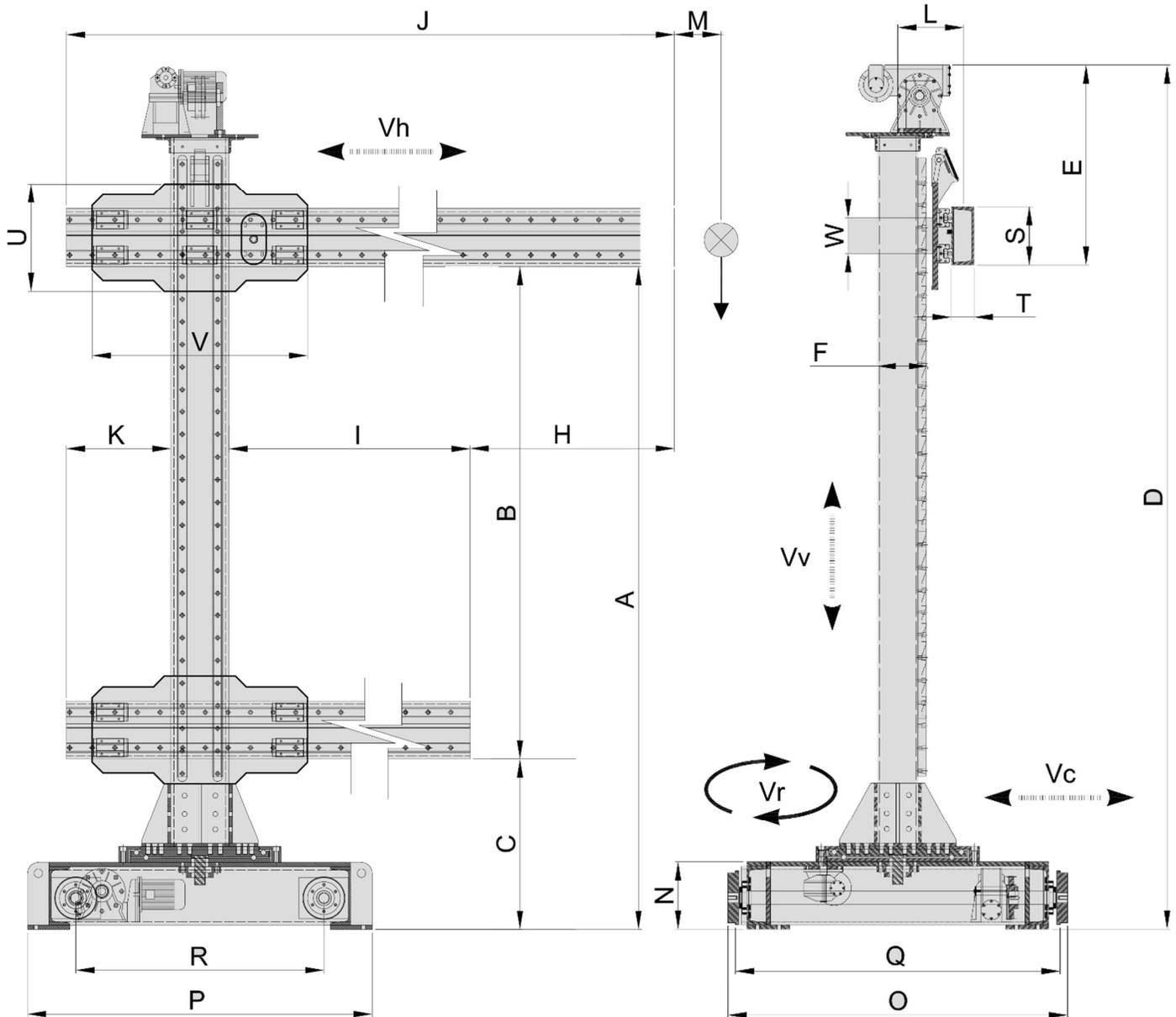
KARA Welding Column & Boom

Welding column and boom has been designed and manufactured for welding several metal structures, vessels and circular surfaces at high dimensions ranging from 2x2 up to 10x10. The driving force of this machine is supplied by a motor gear box caused by a mechanical movement. The travel speed equals the speed of a welding tractor from 10 to 120 cm/min. The slow vertical movement and linear control of horizontal boom movement in two directions leads to a high speed and quality of welding on heavy metal work-pieces. The 360° turning of the column allows for a radial performance of machine. Also, there is a possibility for installation of a movable cutting and welding torch on the boom. The efficiency of this machine can be increased by using KARA rotary tables.





Working dimensions of the device





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Technical Data (Overall)

| Model | KCB 2x2 | KCB 3x3 | KCB 4x7 – A | KCB 4x7 – B | KCB 6x7 | KCB 10x10 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Max. Loading Capacity (Kg) (End of Boom) | 230 | 400 | 400 | 450 | 400 | 400 |
| Deflection (mm) | 3.7 | 6.4 | 21.8 | 0.6 | 29.3 | 49.4 |
| Main Voltage/Frequency | 380V - 50Hz |
| Net Weight (Kg) | 4800 | 5500 | 6200 | 5700 | 6800 | 8300 |
| A+C (Min/Max Height under Boom) (mm) | 1100/2025 | 1100/3025 | 1100/4025 | 1050/4050 | 1100/6025 | 1100/10025 |
| B (Vertical Boom Travel) (mm) | 925 | 1925 | 2925 | 3000 | 4925 | 8925 |
| D (Overall Height) (mm) | 3970 | 4970 | 5970 | 6340 | 7970 | 11740 |
| E (Minimum Height to Top) (mm) | 1945 | 1945 | 1945 | 2290 | 1945 | 1945 |
| F (Column Width) (mm) | 660 | 660 | 660 | 500 | 660 | 660 |
| H (Horizontal Boom Travel) (mm) | 650 | 1650 | 5650 | 6100 | 5650 | 7500 |
| I (Minimum Boom Length) (mm) | 1200 | 1200 | 1200 | 1150 | 1200 | 1200 |
| J (Total Boom Length) (mm) | 3300 | 4300 | 8300 | 8690 | 8300 | 10000 |
| K (Min/Max. Back length) (mm) | 970/1620 | 970/2620 | 970/6620 | 1120/7150 | 970/6620 | 970/7500 |
| L (Boom out of Center) (mm) | 0 | 0 | 0 | 435 | 0 | 0 |
| M (Load Distance) (mm) | 280 | 320 | 320 | 350 | 320 | 320 |
| Vh (Min/Max. Horizontal Speed) (mm/min) | 130/650 | 130/650 | 130/650 | 150/750 | 130/650 | 130/650 |
| Vv (Vertical Speed) (mm/min) | 800 | 800 | 800 | 760 | 800 | 800 |
| Vr (Min/Max. Rotation Speed 360°) (rpm) | 0.35/1.4 | 0.35/1.4 | 0.35/1.4 | 0.35/1.4 | 0.35/1.4 | 0.23/1.16 |

Technical Data (Stationary/Motorized Base)

| | | | | | | |
|---------------------------------------|----------|----------|----------|----------|----------|------|
| N (Height) (mm) | 300 | 300 | 300 | 284 | 300 | 320 |
| O (width) (mm) | 3166 | 3166 | 3166 | 2350 | 3166 | 4440 |
| P (Length) (mm) | 3166 | 3166 | 3166 | 2260 | 3166 | 4440 |
| Q (Track Gauge) (mm) | 1452 | 1452 | 1452 | 2248 | 1452 | - |
| R (Wheel Base) (mm) | 2789 | 2789 | 2789 | 1500 | 2789 | - |
| Vc (Min/Max. Carriage Speed) (mm/min) | 280/1400 | 280/1400 | 280/1400 | 284/1420 | 280/1400 | - |

Technical Data (Cross Box/Boom)

| | | | | | | |
|------------------------------|------|------|------|------|------|------|
| S (Boom Height) (mm) | 310 | 310 | 310 | 350 | 310 | 380 |
| T (Boom Width) (mm) | 220 | 220 | 220 | 210 | 220 | 210 |
| U (Cross Box Height) (mm) | 635 | 635 | 635 | 880 | 635 | 718 |
| V (Cross Box Length) (mm) | 1200 | 1200 | 1200 | 1230 | 1200 | 1800 |
| W (Linear Way Distance) (mm) | - | - | - | 395 | - | - |

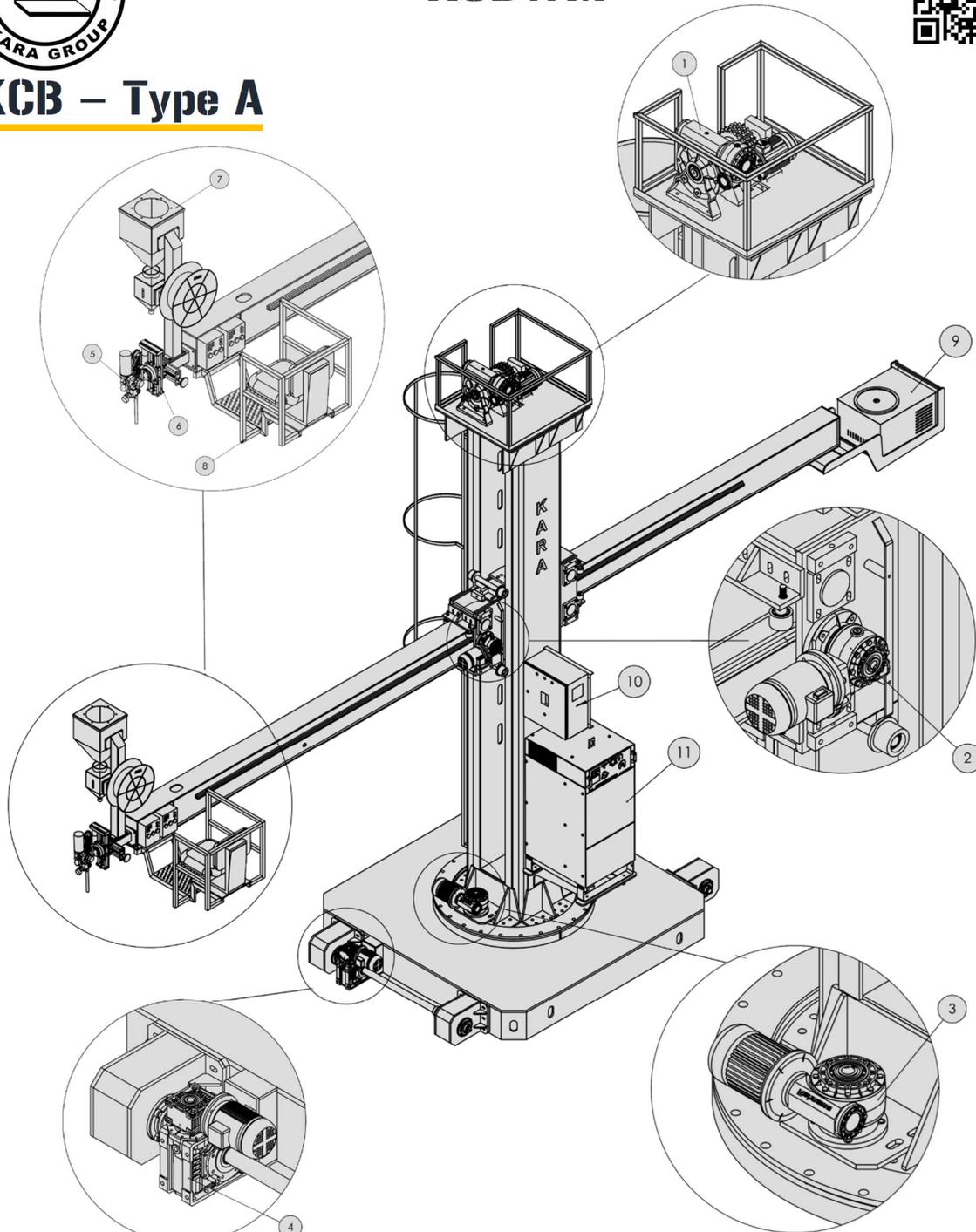




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KCB – Type A

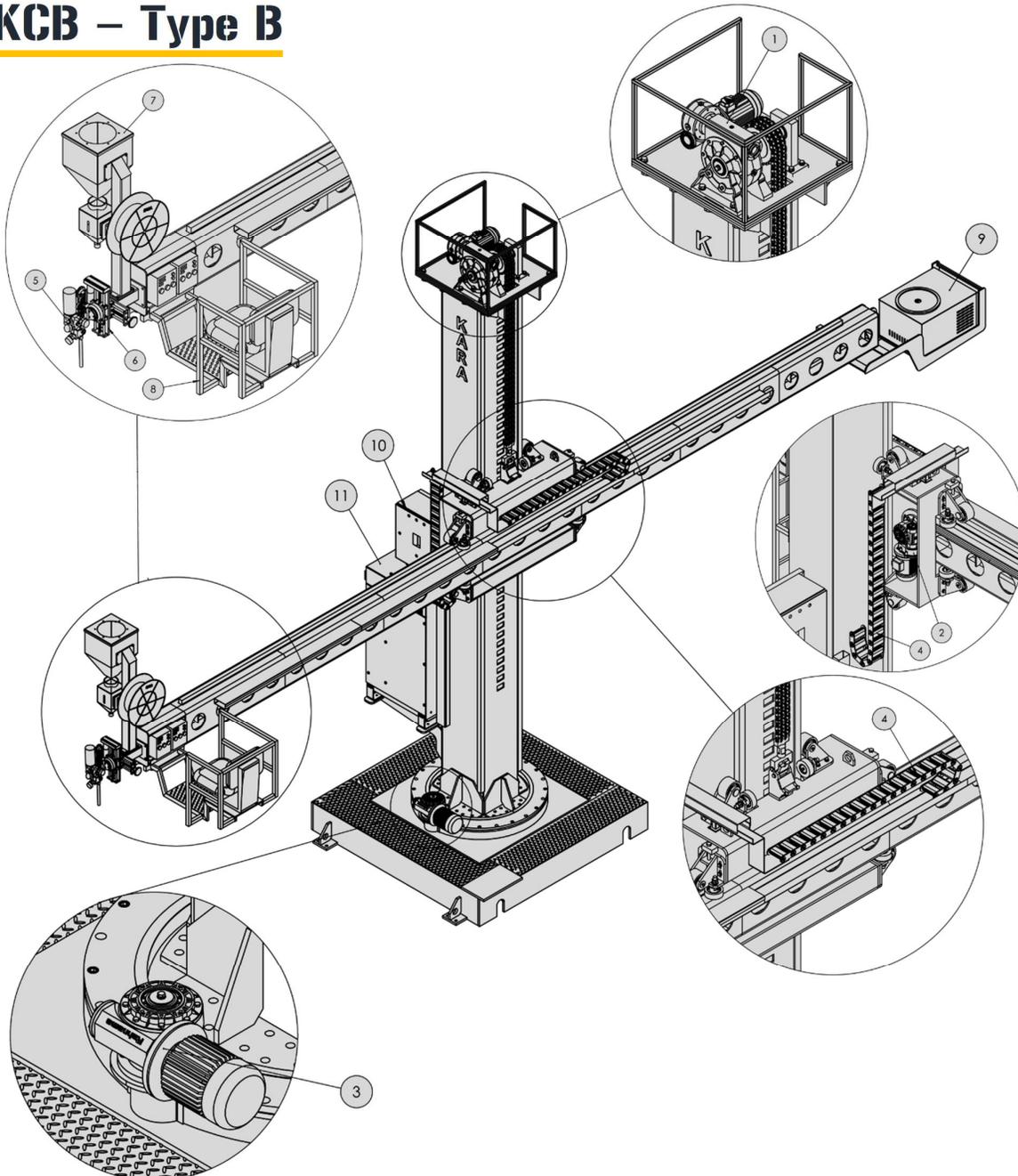


| | | | |
|---|----------------------------------|----|-----------------------------|
| 1 | Boom Vertical Motor & Gearbox | 7 | Welding Head Powder Storage |
| 2 | Boom Horizontal Motor & Gearbox | 8 | Operator Chair |
| 3 | Column Rotation Motor Gearbox | 9 | Suction |
| 4 | Machine Travel Motor Gearbox | 10 | Electrical Box |
| 5 | Wire Feeder Motor Gearbox | 11 | TCR 1250 |
| 6 | Welding Head Linear Displacement | | |





KCB – Type B



| | | | |
|---|----------------------------------|----|-----------------------------|
| 1 | Boom Vertical Motor & Gearbox | 7 | Welding Head Powder Storage |
| 2 | Boom Horizontal Motor & Gearbox | 8 | Operator Chair |
| 3 | Column Rotation Motor Gearbox | 9 | Suction |
| 4 | Cross box Energy Chains | 10 | Electrical Box |
| 5 | Wire Feeder Motor Gearbox | 11 | TCR 1250 |
| 6 | Welding Head Linear Displacement | | |



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Power Sources Technical Data

| Model | TCR 1600 | TCR 1250 | TCR 1000 |
|---------------------------------|------------------------|------------------------|------------------------|
| Setting Range | 250A/24V-1600A/44V | 250A/24V-1250A/44V | 250A/24V-1000A/44V |
| Max. Load at 100% Duty Cycle | 1600A/44v | 1250A/44V | 1000A/44V |
| Max. Output Voltage Variation | 2% | 2% | 2% |
| Max. Input Current at 100% D.C. | 130A | 106A | 85A |
| Open Circuit Voltage | 55V D.C. | 55V D.C. | 55V D.C. |
| No Load Power | 600W | 500W | 500W |
| Input Power | 3PH 380V 50Hz | 3PH 380V 50Hz | 3PH 380V 50Hz |
| Full Load Cos ϕ ~ | 0.93 | 0.92 | 0.91 |
| Full Load Efficiency | 0.86 | 0.86 | 0.86 |
| Colling Type | Air Circulate with Fan | Air Circulate with Fan | Air Circulate with Fan |
| Protection Class | IP22 | IP22 | IP22 |
| Insulation Class | H (180°C) | H (180°C) | H (180°C) |
| Dimension L/W/H (mm) | 790/625/1435 | 760/590/1435 | 646/546/1090 |
| Weight (Kg) | 580 | 490 | 420 |
| Fuse (Time Lag) | 160 A | 125 A | 100 A |
| Input Cable Area | 4*25 mm | 4*25 mm | 4*16 mm |
| Output Cable Area | 2*95 mm | 2*95 mm | 2*95 mm |

Welding Head Technical Data

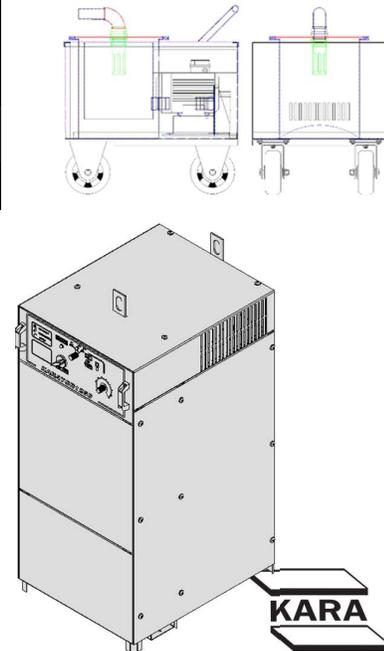
| | |
|--------------------------------|-----------|
| Welding Head Horizontal Stroke | 300 mm |
| Welding Head Vertical Stroke | 300 mm |
| Height Sensor | Installed |
| Wire Diameter | 1.6-5 mm |
| Max Wire Feed Speed | 9 m/min |
| Electrode Weight | 30 Kg |
| Flux Volume | 10 Litre |
| Control Voltage | ~ 42V |
| Linear Slide Setting Length | 245 mm |
| Max. Load at 100% Duty Cycle | 1250 A |

PEG1 Welding Control Box Technical Data

| | |
|-------------------------------|----------|
| Normal Connected Load | 42V AC |
| Output Voltage | 530 VA |
| Armature Circuit (Adjustable) | 0-42V DC |
| Field Circuit (Fixed) | 36V DC |
| Protection Class | IP20 |
| Max. Ambient Temperature | 45°C |

Suction Technical Data

| | |
|-------------------------------|----------|
| Normal Connected Load | 42V AC |
| Output Voltage | 530 VA |
| Armature Circuit (Adjustable) | 0-42V DC |
| Field Circuit (Fixed) | 36V DC |





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KARA Quality Certificates



Contact US



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