

DALEX

SCHWEISSTECHNIK

SF/SL/PL

DALEX TRADE MACHINES PROGRAMM

CLASS SF / SL / PL



DALEX Schweißmaschinen GmbH & Co. KG



ERFAHRUNG SCHWEISST ZUKUNFT
EXPERIENCE WELDS FUTURE

www.dalex.de

QUALITY IN SERIES

Technical competence, knowledge and first-class tools have always been the basis of quality workmanship. And today, customers are also seeking flexibility, reliability and economy. With its SF/SL and PL spot welding units specially designed for handicraft welding, DALEX is the competent partner for handicraft trades.

Foot-operated lever spot welding machines **CLASS SF** with the performance of a large industrial machine. For precision welding of sheets and wire. **Dependable and flexible.**

Compressed air operated rocker-arm spot welding machines **CLASS SL** with 1st class quality and characteristics. For craftsman-like welding with the characteristic industrial finish. **Effective and rational.**

Spot welding machines **CLASS PL** for craftsman-like welding with highest capability for spot sequencing, welding performance and electrode force. **Productive and economical.**

CHARACTERISTICS (SF / SL / PL)

- 14 graduated spot welding machines
- best price / performance ratio
- modular construction system
- modifiable standard program
- extensive range of accessories
- high performance transformers from our own manufacturing; no thermal problems in shift operations
- high performance, sturdy and modern technology „Made in Germany“

CLASS SF / SL

BALANCER SPOT WELDING MACHINES CLASS SF / SL

PERFORMANCE DATA (SF/SL)

NOMINAL POWER	SECONDARY SHORT CIRCUIT CURRENT
8 kVA	9,1 kA
12 kVA	11.2 kA
20 kVA	15,0 kA
30 kVA	20,0 kA
50 kVA	25,0 kA

THROAT DEPTH

SF/SL 102/104	130 - 300 mm (standard)
SF/SL 202/204/206	130 - 500 mm (standard) 380 - 700 mm (optionally)

ARM DISTANCE

SF/SL 102/104	160 mm
SF/SL 202/204/206	250 mm

ELECTRODE FORCE

SF 102/104	max. 2,2 kN (220 daN)
SL 102/104	max. 3,6 kN (360 daN)
SF 202/204/206	max. 3,6 kN (360 daN)
SL 202/204/206	max. 4,2 kN (420 daN)

ELECTRODE STROKE max. 50 mm





made
in
Germany

PERFORMANCE FEATURES SERIE SF / SL 100



Robust machine framework with DALEX basic technology for light industrial applications.



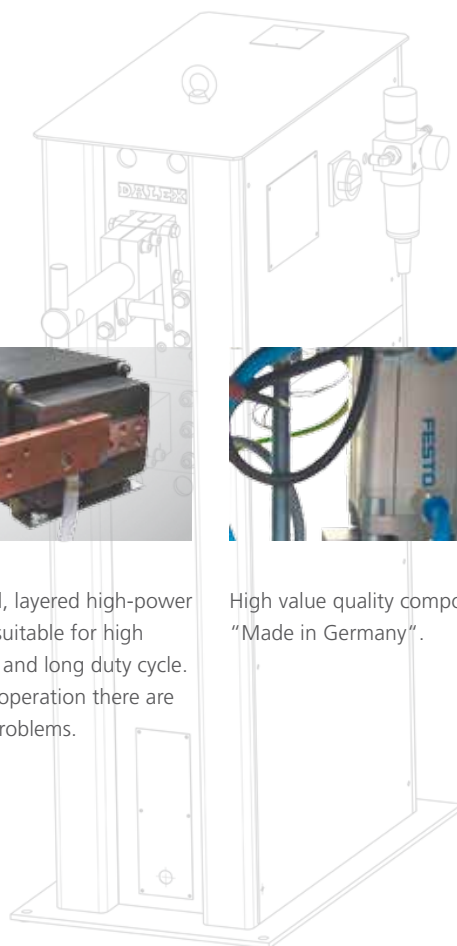
Multi-functional control unit with micro-processor and safety switching. Operation by standardized picture symbols (not dependant on the language)



Water-cooled, layered high-power transformer suitable for high performance and long duty cycle. Even in shift operation there are no thermal problems.



High value quality components "Made in Germany".





**PERFORMANCE DATA CLASS
SERIE SF / SL 200 WITH AFS-TECHNOLOGY**



Extremely rigid machine frame-
work for electrode force up
to 420 daN for welding stainless
steel etc.



Multi-functional control unit with
micro-processor and safety switching.
Operation by standardized picture
symbols (not dependant on the
language)



High value quality components
"Made in Germany"



Water-cooled, layered high-power
transformer suitable for high
performance and long duty cycle.
Even in shift operation there are
no thermal problems

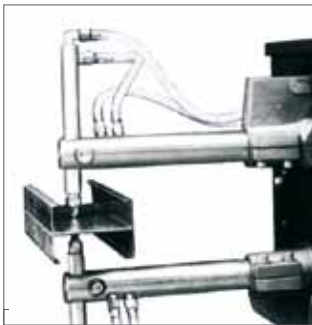


Excellent access to the machine
for service and maintenance



Easily adjustable gap limitation of
the upper

OPTIONAL FEATURES CLASS SF / SL



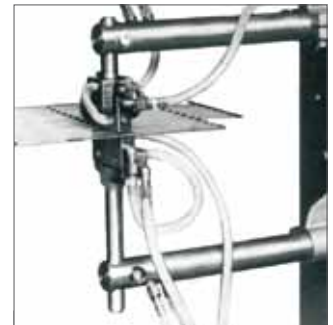
STANDARD ELECTRODE FITTING
for spot welding of C-profil with standard electrodes



ANGLE SHAPED ELECTRODE HOLDER
for welding of steel profil



SWIVEL UNIT
for welding hardt to reach spots:the electrode holder swive unit can turn on its axis and the lower arm can be adjusted in height.



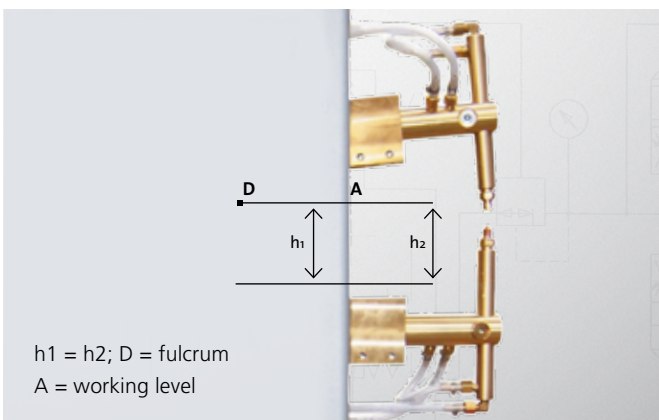
PENDULAR AND ARBOR ELECTRODE HOLDER
for welding of wire tences



VICE ELECTRODE
for welding of one sheet disc on one rod. The rod carry the current and is clamped in a vice electrode.



ROD ARM
for spot welding of cylindrical parts. The fitting is infinitely adjustable from 130-500 mm.



DALEX ANTI FRICTION SYSTEM (AFS)

Through the displacement of the fulcrum of the upper arm on the working level of the lower arm, a friction-free application of the electrodes is guaranteed. Force and current are brought exactly onto the workpiece, the weld is secured.

DRUCKLUFTANSCHLUSS
NG20-63/4

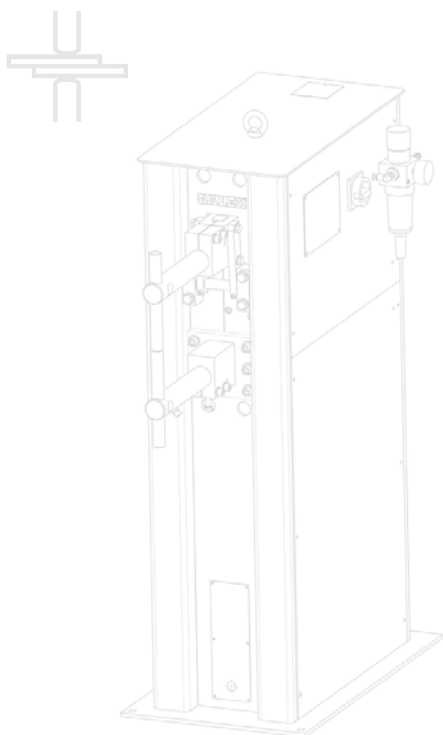


SL 206 WITH SWIVEL FITTING

For welding of tough accessible areas. The electrode holders of the swivel armature can be moved in the axial direction, the lower electrode holder can be additionally moved in the radial direction and is adjustable in the height.

CLASS SF 100 / SF 200

BALANCER-
spot welding machine
(FOOT OPERATED)



type SF 102



TECHNICAL DATA

nominal power at 50 % DC	8 kVA
secondary short circuit current	9,1 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	160 mm
electrode force / stroke	2,2 kN (220 daN) 50 mm

type SF 104



TECHNICAL DATA

nominal power at 50 % DC	12 kVA
secondary short circuit current	11,2 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	160 mm
electrode force / stroke	2,2 kN (220 daN) 50 mm

CLASS SL 100 / SL 200

BALANCER-
spot welding machine
(COMPRESSED AIR OPERATED)



type SL 102



TECHNICAL DATA

nominal power at 50 % DC	8 kVA
secondary short circuit current	9,1 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	160 mm
electrode force / stroke	3,6 kN (360 daN) 50 mm

type SL 104



TECHNICAL DATA

nominal power at 50 % DC	12 kVA
secondary short circuit current	11,2 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	160 mm
electrode force / stroke	3,6 kN (360 daN) 50 mm

type SF 202



TECHNICAL DATA

nominal power at 50 % DC	20 kVA
secondary short circuit current	15 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	250 mm
electrode force / stroke	3,6 kN (360 daN) 50 mm

type SF 204



TECHNICAL DATA

nominal power at 50 % DC	30 kVA
secondary short circuit current	20 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	250 mm
electrode force / stroke	3,6 kN (360 daN) 50 mm

type SF 206



TECHNICAL DATA

nominal power at 50 % DC	50 kVA
secondary short circuit current	25 kA
throat depth (infinitely adjustable)	130 - 300 mm
arm distance	250 mm
electrode force / stroke	3,6 kN (360 daN) 50 mm

type SL 202



TECHNICAL DATA

nominal power at 50 % DC	20 kVA
secondary short circuit current	15 kA
throat depth (infinitely adjustable)	130 - 500 mm
arm distance	250 mm
electrode force / stroke	4,2 kN (420 daN) 50 mm

type SL 204



TECHNICAL DATA

nominal power at 50 % DC	30 kVA
secondary short circuit current	20 kA
throat depth (infinitely adjustable)	130 - 500 mm
arm distance	250 mm
electrode force / stroke	4,2 kN (420 daN) 50 mm

type SL 206



TECHNICAL DATA

nominal power at 50 % DC	50 kVA
secondary short circuit current	25 kA
throat depth (infinitely adjustable)	130 - 500 mm
arm distance	250 mm
electrode force / stroke	4,2 kN (420 daN) 50 mm

PARALLEL STROKE SPOT WELDING MACHINE



PERFORMANCE DATA (PL)

NOMINAL INPUT	SECONDARY SHORT CIRCUIT CURRENT
40 kVA	26,2 kA
63 kVA	31,5 kA
80 kVA	35,0 kA
100 kVA	41,5 kA

THROATH DEPTH

PL 40/63	250 - 550 mm (standard) 450 - 750 mm (optionally)
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PL 80/100	350 - 650 mm (standard)
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ARM DISTANCE

PL 40/63	150 mm oder 310 mm
PL 80/100	160 mm oder 360 mm

With slight-changes of the arm throat depth and of the distance between both arms, the spot welding machine is suitable for a flexible production.

ELECTRODE FORCE

max. 1 - 6 kN (100 - 600 daN)

Optionally one double stroke cylinder can supplied.

ELECTRODE STROKE

PL 40/63	max. 20 mm
PL 80/100	max. 65 mm

For the running into the workpiece the larger prestroke will be used, 45 mm with PL 40/63 and 65 mm with the PL 80/100.

- 1** electrode force cylinder with precision slide unit and prefixed electrode holder (optional double stroke version)
- 2** adjustable throat depth
- 3** adjustable arm distance
- 4** in vacuum encapsulated layer core transformer, available in various power sizes
- 5** control cabinet according to VDE
- 6** welding current start via pedal
- 7** solid machine frame



PERFORMANCE DATA CLASS PL



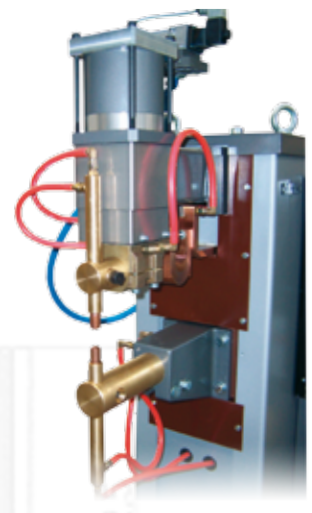
Throat depth infinitely adjustable and height-adjustable arm distance by 180° rotation of the lower suspension bracket
 PL 40: 250 - 550 mm
 PL 63: 450 - 750 mm
 PL 80: 350 - 650 mm
 PL 100: 350 - 650 mm



Water-cooled, layered high-power transformer suitable for high performance and long duty cycle. Even in shift operation there are no thermal problems

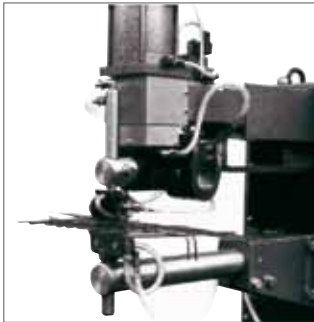


Multifunction welding control with comfortable memory function for up to 8 material and component pairings



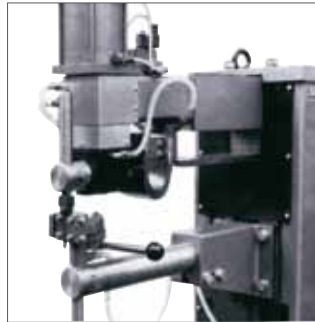
Parallel guided electrode force system up to 6 kN (600 daN)

OPTIONAL FEATURES CLASS PL



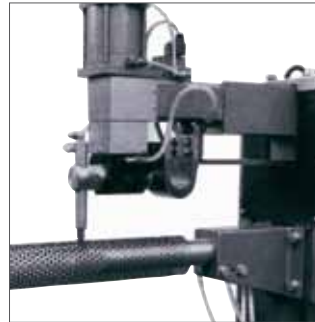
PENDULAR AND ARBOR ELECTRODE HOLDER

multiple welds through one stroke (wire cross) requires one pendular electrode holder at the upper side and one arbor electrode holder at the lower side



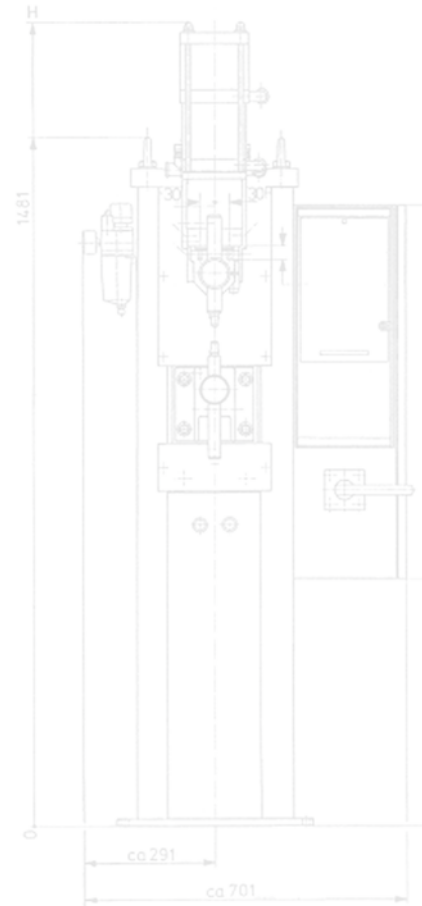
VICE ELECTRODE

for welding of bolts, thread gudgeon etc. by means of current flowed clamping



ROD ARM

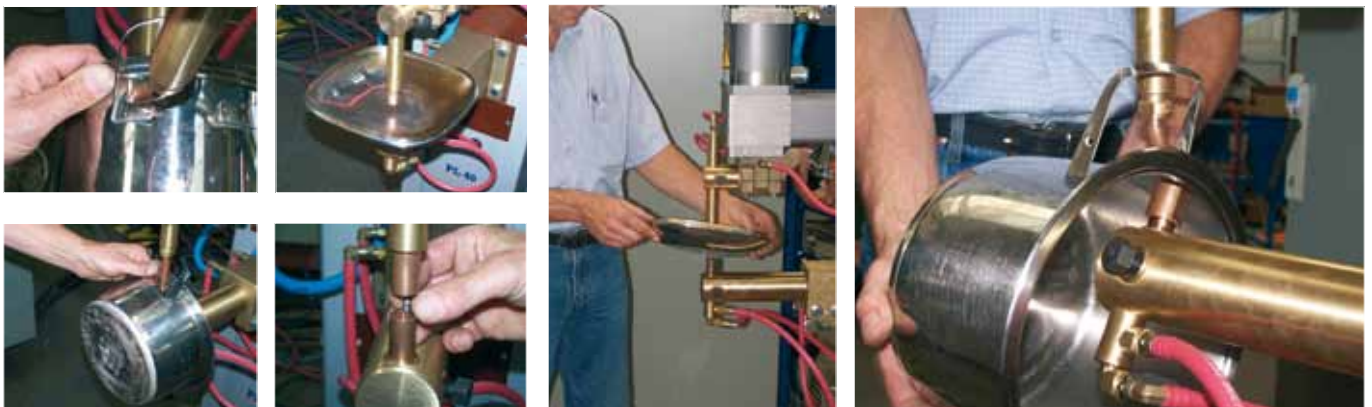
with linear or angular shaped electrode



Further accessories are contained in our DALEX Components Catalogue



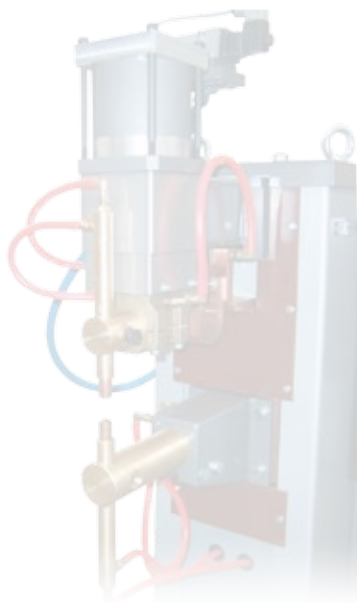
APPLICATION EXAMPLE CLASS PL



FLEXIBLE WELDING BY POT PRODUCTION

CLASS PL

PARALLELHUB-
Punktschweißmaschine
(DRUCKLUFTBETÄTIGT)



type PL 40



TECHNICAL DATA

nominal power at 50 % DC	40 kVA
secondary short circuit current	26,2 kA
throath depth (infinitely adjustable)	250 - 550 mm
arm distance	160 / 310 mm
electrode force / stroke	1 - 6 kN (100 - 600 daN) 65 mm

type PL 63



TECHNICAL DATA

nominal power at 50 % DC	63 kVA
secondary short circuit current	31,5 kA
throath depth (infinitely adjustable)	250 - 550 mm
arm distance	160 / 310 mm
electrode force / stroke	1 - 6 kN (100 - 600 daN) 65 mm

type PL 80



TECHNICAL DATA

nominal power at 50 % DC	80 kVA
secondary short circuit current	35 kA
throath depth (infinitely adjustable)	350 - 650 mm
arm distance	160 / 360 mm
electrode force / stroke	1 - 6 kN (100 - 600 daN) 90 mm

type PL 100



TECHNICAL DATA

nominal power at 50 % DC	100 kVA
secondary short circuit current	41,5 kA
throath depth (infinitely adjustable)	350 - 650 mm
arm distance	160 / 360 mm
electrode force / stroke	1 - 6 kN (100 - 600 daN) 90 mm



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