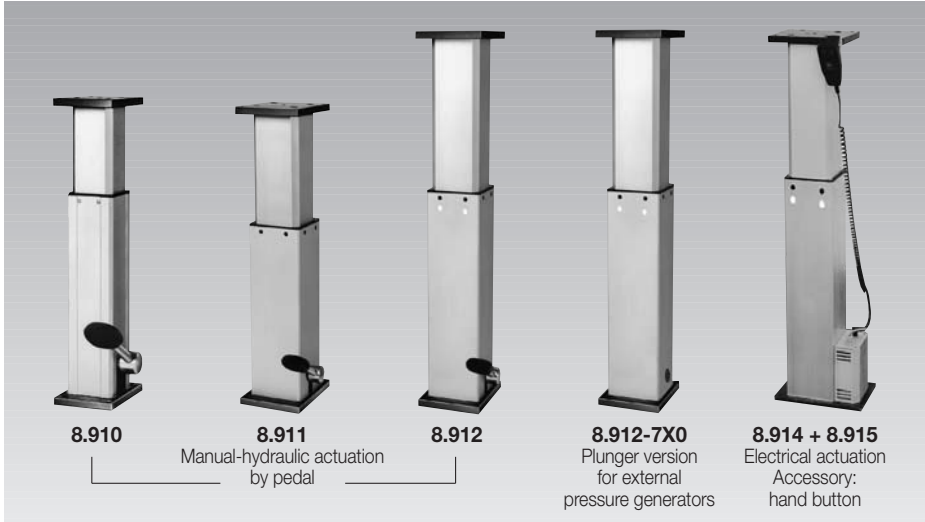


Lifting Units

with manual-hydraulic, pneumatic-hydraulic, electro-hydraulic or electrical actuation, strokes from 200 to 600 mm / lifting force up to 6 kN



Lifting unit equipped with swivel fixture for assembly in optimum working height

Application possibilities

These lifting units are particularly suitable for height adjustment of assembly and welding fixtures, working tables, demonstration objects, and similar equipment, as well as treatment equipments in the field of medicine. Lifting units represent a basic unit for mechanisms which require controlled lifting or lowering of loads or shall be used for height adjustment only.

The optimum working position for the respective operator is obtained by manual height adjustment or by power unit.

Materials

The stands and plates are made out of anodized aluminium. The plates are black anodized.

Manual-hydraulic actuation

The stroke movement is obtained by a hydraulic lifting jack with single-lever actuation. Oil is pumped by means of a piston pump into a plunger cylinder.

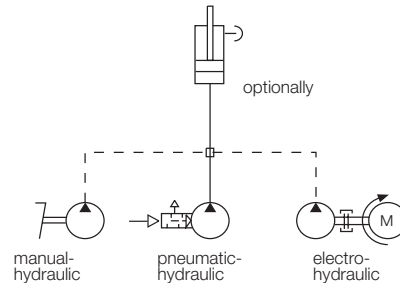
To lift the load, the foot lever has to be moved downwards by approx. 45° several times. The foot lever will be returned to its initial position by a return spring.

To lower the load the foot lever has to be moved upwards by approx. 10°. Thereby the oil returns from the cylinder into the reservoir. The lifting jacks proved to be worthwhile in several thousand applications.

Plunger version

manual-hydraulic, pneumatic-hydraulic, electro-hydraulic actuation

Plunger cylinders can be directly pressurised by external pressure generators. This version is used if the pedal at the lifting unit is not accessible or if actuation shall be made by a control.



As pressure generators optionally the power units as per data sheet D 8.011 and the following data sheets, hydraulic pumps as per data sheets D 8.800/8.817, and the hydro-pneumatic pumps as per data sheet D 8.600 can be used.

Electrical actuation

The stroke movement is obtained by a spindle lifting gear which is driven by an electric motor. Lifting and lowering is triggered by push-buttons with touch control contact. After releasing the push-button, the movement will be immediately stopped.

Attention! Danger of Accident!

If a lifting unit is directly connected with the floor and the centre of gravity of the load to be lifted is outside the four fixing screws, considerable pulling forces act on the fixing screws. Depending on the ground conditions, this can lead to pulling out the screws and thereby to tilting of the lifting unit. We recommend in such cases an additional base plate (see page 4). The centre of gravity must be within the 4 fixing screws.



Riveting machine assembled on a lifting unit with height-adjustable frame for adaptation to the floor



Height-adjustable assembly working place on 3 electrically-operated lifting units

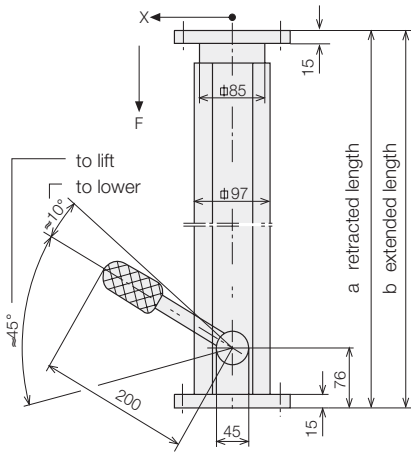
网址: www.fdzc.net 联系人: 程家雄 手机: 13601809714

联系电话: 021-51872743

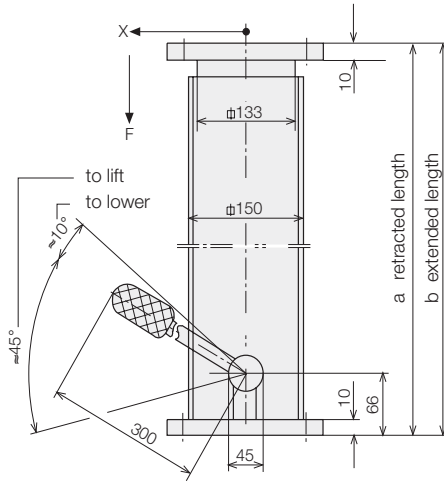
E-mail: chengff@sh163.net

Lifting units with manual-hydraulic actuation

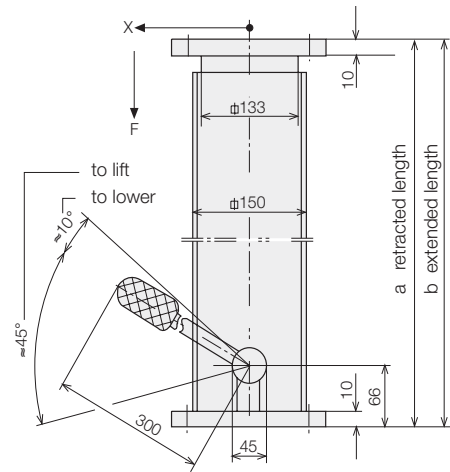
Line 8.910 Lifting force: 2 kN



Line 8.911 Lifting force: 4 kN



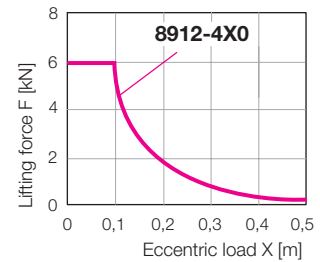
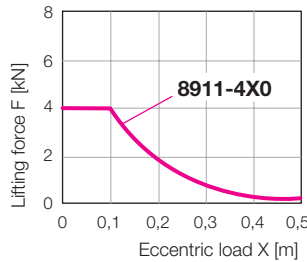
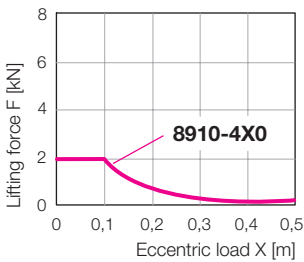
Line 8.912 Lifting force: = 6 kN



Admissible load moment generated by the sum of all eccentric loads 50 Nm.

Admissible load moment generated by the sum of all eccentric loads 300 Nm.

Admissible load moment generated by the sum of all eccentric loads 300 Nm.



These details refer to lowering of an eccentric load

These details refer to lowering of an eccentric load

These details refer to lowering of an eccentric load

Feature:
Version without flow control valve

Feature:
Version with flow control valve

Features:
Version with flow control valve

Line 8.910

Stroke mm	a mm	b mm	No. of operations	Weight [kg]	F = 2 kN Part-no.
200	420	620	16	9.5	8910-420
300	520	820	25	10	8910-430
400	620	1020	33	11.5	8910-440
500	720	1220	41	13	8910-450
600	820	1420	50	14.5	8910-460

Line 8.911

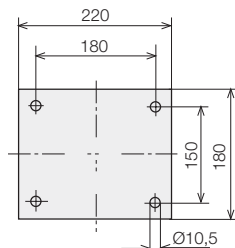
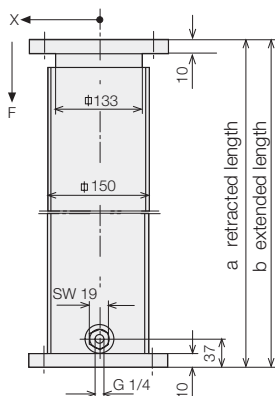
No. of operations	Weight [kg]	F = 4 kN Part-no.
16	16	8911-420
25	21	8911-430
33	26	8911-440
41	31	8911-450
50	36	8911-460

Line 8.912

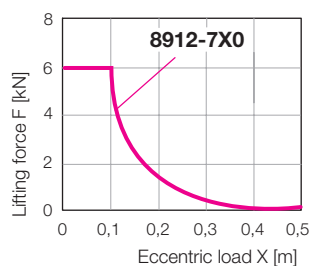
No. of operations	Weight [kg]	F = 6 kN Part-no.
20	16	8912-420
30	21	8912-430
40	26	8912-440
50	31	8912-450
60	36	8912-460

Lifting units with plunger cylinder

**Line 8.912 Lifting force: 6 kN
at Pnom = 200 bar**



Admissible load moment generated by the sum of all eccentric loads 300 Nm.



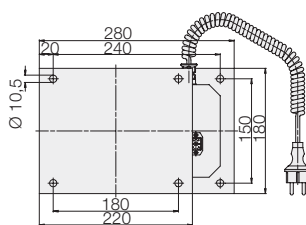
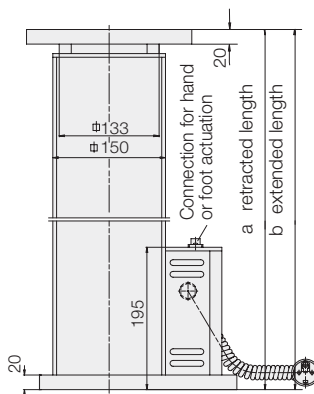
These details refer to lowering of an eccentric load

Feature:
Plunger dia. 20 mm, Pmax. = 250 bar

Line 8.912-7X0				
Stroke mm	a mm	b mm	Weight [kg]	F = 6 kN Part-no.
200	420	620	16	8912-720
300	520	820	21	8912-730
400	620	1020	26	8912-740
500	720	1220	31	8912-750
600	820	1420	36	8912-760

Lifting units with electrical actuation

**Line 8.914 Lifting force: 2.5 kN
Line 8.915 Lifting force: 4 kN**



Admissible load moment generated by the sum of all eccentric loads 300 Nm.

Electrical data

Motor voltage	230 V 50 Hz
Control voltage	24V DC
Duty cycle	8% ED
Power consumption	approx. 270 W
Type of protection	IP 54
Connecting line	PUR
coiled	0.6 m
effective length	2.4 m

Versions

- Electric control

Control is effected by push-buttons with touch control contact.

Accessory: for individual lifting units

- hand button **Part-no. 3823-025**
- foot button **Part-no. 3823-029**

- Synchronization control

If two or several electric lifting units are used at the same time, movement of the lifting units must be synchronized. For such applications a synchronization control is available. This control can only be used, if the lifting units with electrical actuation are equipped with an integrated position sensor. The control makes sure that the difference in the individual positions is max. 2 mm.

- Programmable positions

In addition, the control can be equipped with a memory for programming of determined positions. The lifting units are moved to the desired positions; by triggering the memory function the values are programmed. Three programmable stop points are provided.

Line 8.914

Stroke mm	a mm	b mm	Weight [kg]	F = 2.5 kN Part-no.
200	420	620	15	8914-420
300	520	820	20	8914-430
400	620	1020	25	8914-440
500	720	1220	30	8914-450
600	820	1420	35	8914-460

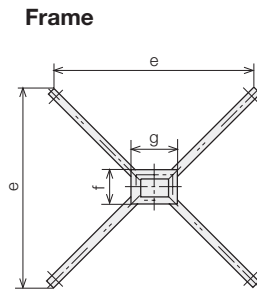
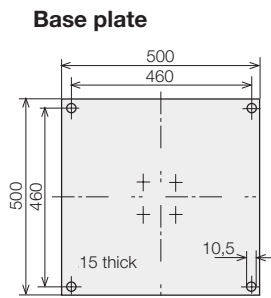
Fmax. dynamic	2.5 kN
Fmax. static	3.5 kN
Time for stroke/100 mm	13 sec ± 3

Line 8.915

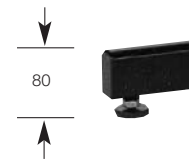
Stroke mm	a mm	b mm	Weight [kg]	F = 4 kN Part-no.
200	420	620	15	8915-420
300	520	820	20	8915-430
400	620	1020	25	8915-440
500	720	1220	30	8915-450
600	820	1420	35	8915-460

Fmax. dynamic	4 kN
Fmax. static	6 kN
Time for stroke/100 mm	17 sec ± 3

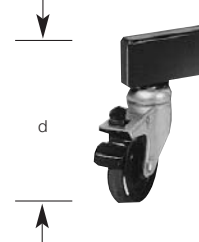
Accessory
Application examples



Height-adjustable frame



Frame with 2 lock-type rollers



Accessory for line	Base plate Part-no.	e	Frame f	g	Admissible load	Part-no.	2 lock-type rollers d	Admissible load	Part-no.
8.910	0891-028	700	120	160	4 kN	0891-060	115	1.5 kN	0891-061
8.911/12/14/15	0891-027	800	180	220	4 kN	0891-062	165	2.5 kN	0891-063

Accessory:
Protection cap on request



Application in critical environment conditions.

Application examples

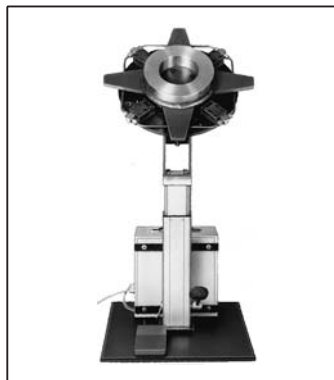


Hydraulic lifting unit equipped with welding device and hydraulic clamping fixture

Oil supply for clamping of the workpieces on the upper surface of the table is effected by means of a rotary coupling.



Hydraulic lifting unit with rotary plate 4 x 90° and hydraulic clamping fixture



Hydraulic lifting unit with angle turning joint equipped with rotary table and hydraulic clamping fixture



Hydraulic lifting unit with pneumatic operating elements

Unlocking of the rotary plate is effected by a single-acting cylinder. In the centre of the rotary plate there is a single-passage pneumatic rotary coupling.