COLUMBUS McKINNON

Hydraulic Lifting Tables -

Standard and High Class Solutions

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PFAFF silberblau Yale®

Pacesetter of development

Our aim is to be upfront with market developments and to act instead to react. Therefore we simulate the world of tomorrow and already have the answers on changed conditions when others diagnose the paradigms.

We use our own know-how and complete it by external expert know-how punctually. Our measure is to produce economical, safety-conscious and for the purpose of our customers.

This way we assure that Pfaff-silberblau is a synonym for lifting, turning and moving („lift, turn and move“) worldwide also in the future.

Discover the whole world of material handling technics.
Make your decision for the future.

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Capabilities

The hydraulic lifting platforms of the Pfaff-silberblau brand can be used variously:

- Plant engineering and construction
- Building industry
- Trade and commerce
- Furniture and large shops

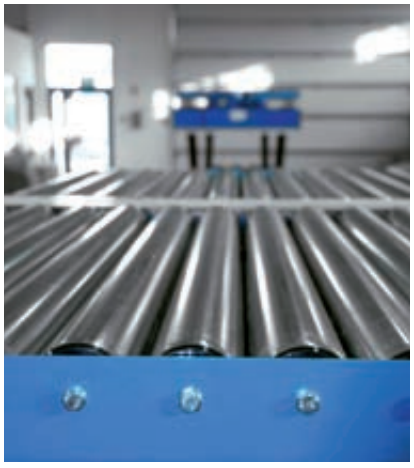
Lifting table 20 ton lifting capacity, platform 10 x 1,7 m, lift 2,4 m

Load transport with safeguarding

Industrial plants lifting table for a special application in a car factory

Special solution for inspection in a nuclear power plant

Loading processes lifting table with safety handrail and manual bridge plate



Hydraulic table with a roller conveyor-application shipping department

Flat scissor lifting table
Model HTF-G SILVERLINE

Capacity 1000 kg

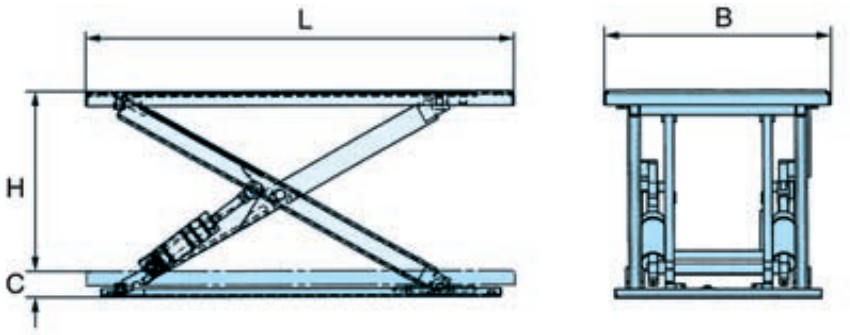
For the professional lifting and handling of loads within a warehouse environment.

Features

- Extremely low-profile design reducing cost and effort for a pit-installation
- The ramp allows loading the platform directly with a pallet truck or trolley
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations

Technical data model HTF-G SILVERLINE

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
040047380	1,0	0,76	1,45 x 1,14	82	18	0,75	250



B Platform width
L Platform length
H Lift
C Overall high

Flat scissor lifting table MODEL HTF-U SILVERLINE

Capacity 1000 kg

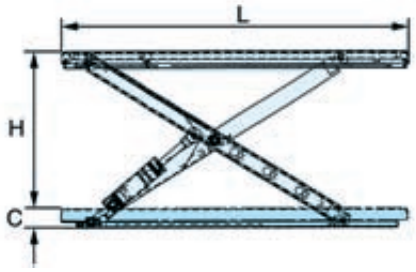
For the professional lifting and handling of loads within a warehouse environment.

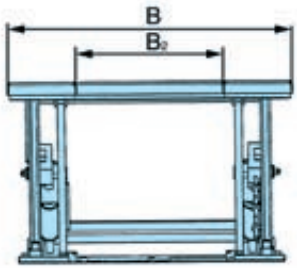
Features

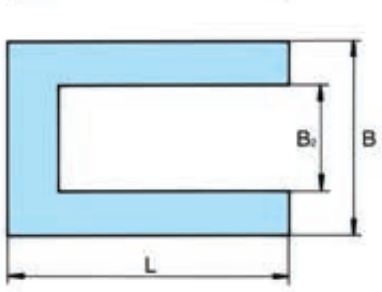
- Extremely low-profile design lowering the cost and effort for a pit installation
- U-design for direct access of industrial trucks
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations

Technical data model HTF-U SILVERLINE

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Platform (B2) mm	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
040047381	1,0	0,76	1,45 x 1,14	585	80	18	0,75	235







B Platform width
L Platform length
H Lift
C Overall high

Handling table
Model HTH-E SILVERLINE

Capacity 500-3.000 kg

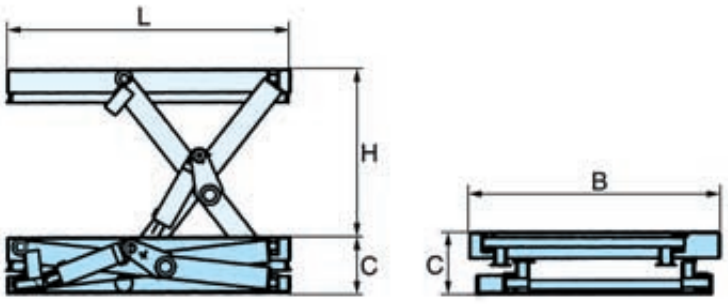
For the professional lifting and handling of heavy loads and palletized goods at workplaces.

Features

- Smooth hydraulic ram action of working height for ergonomic working conditions
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations

Technical data model HTH-E SILVERLINE

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
040049470	0,5	0,82	1,3 x 0,8	190	15	0,75	160
040049471	1,0	0,82	1,3 x 0,8	190	25	0,75	220
040049472	2,0	0,82	1,3 x 0,8	190	40	0,75	280
040049473	3,0	0,80	1,3 x 0,8	220	26	1,5	320



B Platform width
L Platform length
H Lift
C Overall high

Standard lifting table
Model HTS-E PROLINE

Capacity 500-2.000 kg

For the professional lifting and handling of heavy loads and palletized goods at workplaces.

Features

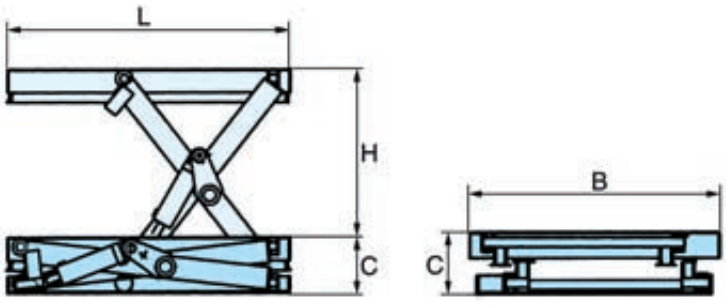
- Smooth hydraulic ram action of working height for ergonomic working conditions
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations
- Designed for 20 load cycles in a one-shift operation

For further information about modifications please see page 16.

Technical data model HTS-E PROLINE

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
034560099	0,5	0,59	1,00 x 0,8	200	10	0,55	135
034560100	0,5	0,8	1,25 x 0,8	200	13	0,55	170
034560101	0,5	0,8	1,25 x 1,0	200	13	0,55	175
034560102	0,5	1,0	1,50 x 0,8	220	20	0,55	186
034560103	0,5	1,0	1,50 x 1,0	220	20	0,55	200
034560104	0,5	1,2	1,80 x 0,8	240	22	0,75	219
034560105	0,5	1,2	1,80 x 1,0	240	22	0,75	230
034560106	1,0	0,8	1,25 x 0,8	200	26	0,55	188
034560107	1,0	0,8	1,25 x 1,0	200	26	0,55	204
034560108	1,0	1,0	1,50 x 0,8	220	40	0,55	215
034560109	1,0	1,0	1,50 x 1,0	220	40	0,55	230
034560110	1,0	1,2	1,80 x 0,8	240	44	0,75	255
034560111	1,0	1,2	1,80 x 1,0	240	44	0,75	270
034560112	1,5	0,8	1,35 x 0,8	250	32	0,75	335
034560113	1,5	0,8	1,35 x 1,0	250	32	0,75	350
034560114	1,5	0,95	1,50 x 0,8	260	36	0,75	355
034560115	1,5	0,95	1,50 x 1,0	260	36	0,75	370
034560116	1,5	1,2	1,80 x 0,8	270	24	1,1	365
034560117	1,5	1,2	1,80 x 1,0	270	24	1,1	380
034560118	2,0	0,8	1,35 x 0,8	250	24	1,1	335
034560119	2,0	0,8	1,35 x 1,0	250	24	1,1	350
034560120	2,0	0,95	1,50 x 0,8	260	27	1,1	360
034560121	2,0	0,95	1,50 x 1,0	260	27	1,1	375
034560122	2,0	1,2	1,80 x 0,8	270	37	1,1	385
034560123	2,0	1,2	1,80 x 1,0	270	37	1,1	400

(More options, for example higher lifting capacity, other platforms size available on request!)



B Platform width
L Platform length
H Lift
C Overall high

Industrial plant lifting table Model HTA-E PROLINE

Capacity 1.000-7.000 kg

For the professional lifting and handling of heavy loads and pallet goods in manufacturing environments.

Features

- Reinforced robust design allows increased stationary load or uneven load distribution during the lifting process
- High duty-cycle
- Adjustable upper limit switch as standard
- Optimum lifting heights offered despite low overall height
- Smooth hydraulic ram action of working height for ergonomic working conditions
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations
- Designed for 30 load cycles in a one-shift operation

For further information about modifications please see page 16.

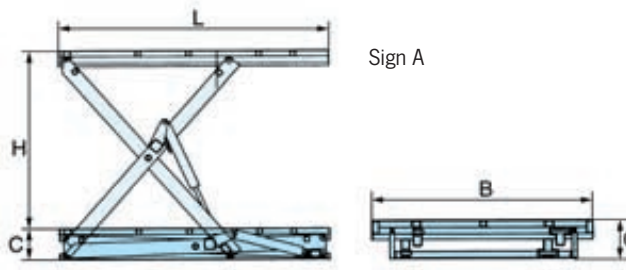
Industrial plant lifting table HTA-E PROLINE (Sign A)

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
034560200	1,0	0,8	1,4 x 0,8	300	16	1,1	300
034560201	1,0	0,8	1,4 x 1,0	300	16	1,1	320
034560202	1,0	1,1	1,7 x 1,0	300	22	1,1	400
034560203	1,0	1,1	1,7 x 1,2	300	22	1,1	430
034560204	1,0	1,3	2,0 x 1,0	320	29	1,1	500
034560205	1,0	1,3	2,0 x 1,2	320	29	1,1	580
034560206	1,0	1,6	2,5 x 1,2	350	28	1,5	700
034560207	1,0	1,6	2,5 x 1,5	350	34	3,0	950
034560208	1,0	1,8	3,0 x 1,2	350	40	3,0	1000
034560209	1,0	1,8	3,0 x 1,5	350	40	3,0	1110
034560210	1,0	1,8	3,0 x 2,0	350	40	3,0	1270
034560211	2,0	0,8	1,4 x 0,8	300	16	1,1	320
034560212	2,0	0,8	1,4 x 1,0	300	16	1,1	340
034560213	2,0	1,1	1,7 x 1,0	300	23	1,1	420
034560214	2,0	1,1	1,7 x 1,2	300	23	1,1	450
034560215	2,0	1,3	2,0 x 1,0	320	30	1,1	520
034560216	2,0	1,3	2,0 x 1,2	320	30	1,1	600
034560217	2,0	1,6	2,5 x 1,2	350	34	3,0	820
034560218	2,0	1,6	2,5 x 1,5	350	34	3,0	950
034560219	2,0	1,8	3,0 x 1,2	350	40	3,0	1000
034560220	2,0	1,8	3,0 x 1,5	350	40	3,0	1110
034560221	2,0	1,8	3,0 x 2,0	350	40	3,0	1270
034560222	3,0	0,85	1,5 x 1,0	350	22	2,2	540
034560223	3,0	1,2	2,0 x 1,0	350	25	3,0	780
034560224	3,0	1,2	2,0 x 1,2	350	25	3,0	840
034560225	3,0	1,6	2,5 x 1,2	380	35	3,0	1000
034560226	3,0	1,6	2,5 x 1,5	380	35	3,0	1110
034560227	3,0	1,8	3,0 x 1,5	380	45	4,0	1270
034560228	3,0	1,8	3,0 x 2,0	380	45	4,0	1400

Industrial plant lifting table HTA-E PROLINE (Sign B)

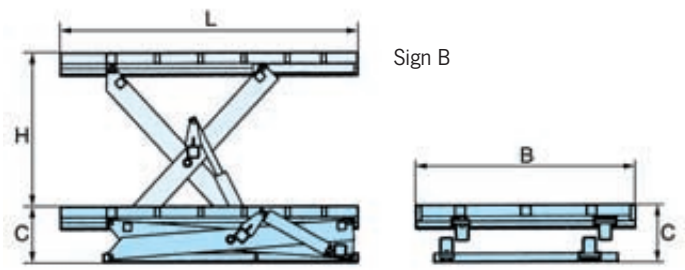
034560229	5,0	1,6	2,5 x 1,5	450	37	4,0	1550
034560230	5,0	1,6	2,5 x 2,0	450	37	4,0	1700
034560231	5,0	1,8	3,0 x 1,5	500	45	4,0	2000
034560232	5,0	1,8	3,0 x 2,0	500	45	4,0	2200
034560233	5,0	1,8	3,5 x 2,0	500	45	4,0	2350
034560234	5,0	1,8	3,5 x 2,4	500	45	4,0	2450
034560235	7,0	1,5	2,5 x 1,5	550	45	4,0	1850
034560236	7,0	1,5	2,5 x 2,0	550	45	4,0	2000
034560237	7,0	1,8	3,0 x 1,5	600	55	4,0	2150
034560238	7,0	1,8	3,0 x 2,0	600	55	4,0	2300
034560239	7,0	1,8	3,5 x 2,0	600	55	4,0	2450

(More options, for example higher lifting capacity, other platforms size available on request!)



Sign A

B Platform width H Lift
L Platform length C Overall high



Sign B

B Platform width H Lift
L Platform length C Overall high

Industrial plant lifting table with tandem scissors Model HTA-T PROLINE

Capacity 1.000-6.000 kg

For the professional lifting and handling of heavy loads and pallet goods in manufacturing environments.

Industrial plant lifting table with double scissors Model HTA-D PROLINE

Capacity 500-1.000 kg

For the professional lifting and handling of heavy loads and palletized goods in manufacturing environments.

Features

- Longer platform size with tandem scissors (type HTA-T)
- Optimum lifting heights combined with small platform dimensions (type HTA-D)
- Smooth hydraulic ram action of working height for ergonomic working conditions
- Optimum lifting heights offered despite low overall height
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations
- Designed for 15 load cycles in a one-shift operation

For further information about modifications please see page 16.

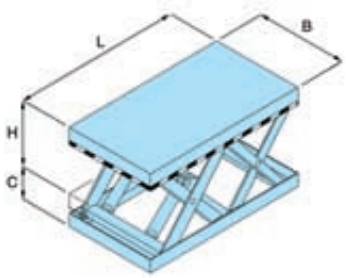
Technical data model HTA-T PROLINE

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
040050600	1,0	0,8	2,5 x 0,8	200	25	0,75	340
040050601	1,0	0,8	2,5 x 1,0	200	25	0,75	360
040050602	1,0	1,0	3,0 x 0,8	220	35	0,75	375
040050603	1,0	1,0	3,0 x 1,0	220	35	0,75	400
040050604	1,0	1,2	4,0 x 0,8	240	46	0,75	480
040050605	1,0	1,2	4,0 x 1,0	240	46	0,75	500
040050606	2,0	0,8	2,5 x 0,8	200	25	1,1	380
040050607	2,0	0,8	2,5 x 1,0	200	25	1,1	410
040050608	2,0	1,0	3,0 x 0,8	220	35	1,1	430
040050609	2,0	1,0	3,0 x 1,0	220	35	1,1	460
040050610	2,0	1,0	3,5 x 1,0	300	30	1,1	820
040050611	2,0	1,2	4,0 x 0,8	240	46	1,1	510
040050612	2,0	1,2	4,0 x 1,0	240	46	1,1	540
040050613	2,0	1,6	5,0 x 1,0	350	35	3,0	1460
040050614	4,0	0,95	3,2 x 0,8	260	40	1,5	720
040050615	4,0	0,95	3,2 x 1,0	260	40	1,5	750
040050616	4,0	1,0	3,5 x 1,0	300	28	3,0	1020
040050617	4,0	1,2	3,8 x 0,8	270	55	1,5	770
040050618	4,0	1,2	3,8 x 1,0	270	55	1,5	800
040050619	4,0	1,6	5,0 x 1,2	350	48	4,0	1640
040050620	6,0	1,6	5,0 x 1,2	380	50	4,0	1860
040050621	6,0	1,6	5,0 x 2,0	380	50	4,0	2400

Technical data model HTA-D PROLINE

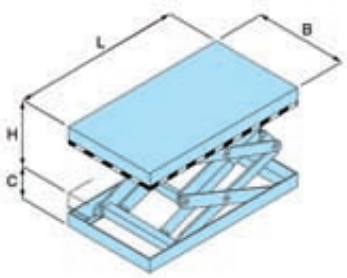
Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
034564021	0,5	1,6	1,3 x 0,8	320	29	0,55	265
034564022	0,5	1,6	1,3 x 1,0	320	29	0,55	275
040050536	0,5	2,0	1,5 x 0,8	350	36	0,55	275
040050537	0,5	2,0	1,5 x 1,0	350	36	0,55	285
034564023	0,5	2,0	1,7 x 0,8	350	38	0,55	310
034564024	0,5	2,0	1,7 x 1,0	350	38	0,55	320
034564025	1,0	1,6	1,3 x 0,8	360	38	0,75	300
034564026	1,0	1,6	1,3 x 1,0	360	38	0,75	315
034564027	1,0	2,0	1,7 x 0,8	380	36	1,1	370
034564028	1,0	2,0	1,7 x 1,0	380	36	1,1	385

(More options, for example higher lifting capacity, other platforms size available on request!)



HTA-T PROLINE

B Platform width
L Platform length
H Lift
C Overall high



HTA-D PROLINE

B Platform width
L Platform length
H Lift
C Overall high

Loading processes lifting table Model HTV-E PROLINE

Capacity 1.000-8.000 kg

For the professional high lifting and handling of heavy loads, palletized goods in ramp applications

Features

- Specific platform dimensions to suit loading applications
- Smooth hydraulic ram action of working height for ergonomic working conditions
- Safe operation due to push-button for up/down in dead man's control, as well as emergency stop
- Overload protection by pressure control valve
- According to EN 1570-1 and all UVV safety regulations
- Designed for 10 load cycles in a one-shift operation

For further information about modifications please see page 16.

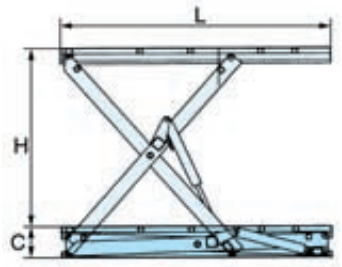
Technical data model HTV-E PROLINE (Type A)

Art.-No.	Lifting capacity t	Lift (H) m	Platform (L x B) m	Overall high (C) mm	Lifting time sec	Motor power kW	Weight kg
034560033	1,0	1,6	2,5 x 1,2	350	28	1,5	700
034560034	1,0	1,8	3,0 x 1,5	350	40	3,0	1110
034560035	1,0	1,8	3,0 x 2,0	350	40	3,0	1270
034560036	2,0	1,6	2,5 x 1,5	350	34	3,0	950
034560037	2,0	1,6	2,5 x 2,0	350	34	3,0	1130
034560038	2,0	1,8	3,0 x 1,5	350	40	3,0	1110
034560039	2,0	1,8	3,0 x 2,0	350	40	3,0	1270
034560040	3,0	1,6	2,5 x 1,5	380	35	3,0	1030
034560041	3,0	1,6	2,5 x 2,0	380	35	3,0	1200
034560042	3,0	1,8	3,0 x 1,5	380	45	4,0	1270
034560043	3,0	1,8	3,0 x 2,0	380	45	4,0	1400

Technical data model HTV-E PROLINE (Type B)

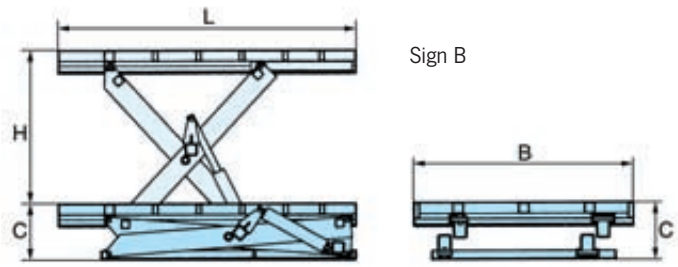
034560044	4,0	1,6	2,5 x 2,0	500	30	4,0	1750
034560045	4,0	1,6	3,0 x 2,0	500	30	4,0	1850
034560046	4,0	1,8	3,0 x 2,0	550	36	4,0	2250
034560047	4,0	1,8	3,0 x 2,4	550	36	4,0	2350
034560048	4,0	1,8	3,5 x 2,4	550	36	4,0	2500
034560054	6,0	1,8	3,0 x 2,0	600	42	4,0	2450
034560055	6,0	1,8	3,0 x 2,4	600	42	4,0	2550
034560056	6,0	1,8	3,5 x 2,4	600	42	4,0	2650
034560057	8,0	1,8	3,0 x 2,0	650	50	4,0	2600
034560058	8,0	1,8	3,0 x 2,4	650	50	4,0	2700
034560059	8,0	1,8	3,5 x 2,4	650	50	4,0	2800

(More options, for example higher lifting capacity, other platforms size available on request!)



Sign A

B Platform width
L Platform length
H Lift
C Overall high



Sign B

B Platform width
L Platform length
H Lift
C Overall high

Handrail:
- protection against fall from heights
- available for position on length or width of platform bolted or plug-in
- available with control button assembled on handrail

Protection:
- closes the open area under the platform
- necessary if open sides cannot be seen be the operator
- available as PVC rolling curtain, bellows or mesh curtain

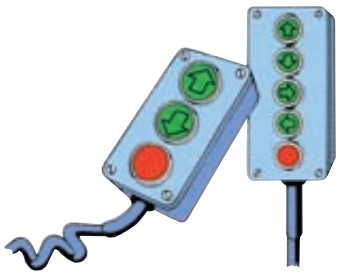
Safety portal:
- effective protection against falls from ramps

Safety door:
- protection against fall from heights
- electrically lockable
  (lifting is only possible with closed door)

Tailboards:
- easy levelling between lorry and lifting table
- several, divided
- available as manual or electric version

Roll-off stop:
- automatic protection against unintentional rolling of the good
- available as manual or electric version

Reinforced frame:
- Top reinforcement for truck transit



Push-button pendant control:
- free definable controls possible

Various superstructures:
- conveyor belt (powered or manual)
- aluminium cover

Frame:
- For easy moving of the lifting table
- Railmounted or with 2 castors and 2 load rollers

- Manual circular turntable

Increased frame:
- For moving the lifting table in lowered position with a fork truck

Questionnaire Hydraulic Lifting Tables - page 1/2

Customer . . . . . .

Company . . . . . Customer-No. . . . . .

Street / P.O. Box No . . . . . Phone . . . . . .

Zip code . . . . . Fax . . . . . .

Contact: Mr. / Mrs. . . . . Position . . . . . .

Quantity: . . . . . .

I. Details about intended use

(for example: loading platform, levelling compensation platform for tooling machinery, etc.)

. . . . . .

. . . . . .

II. Technical Data

a) Lifting capacity	P	kg
b) Platform dimensions	L x B	mm x mm
c) Lift (= effective lift, excluding headroom)	H	mm

Attention! Due to the scissor principle the lifting height of the platform is approx. 60 % of the platform length (for single scissors). Double vertical scissors are recommended only for selected applications as the headroom will be double the size compared to the single scissor version.

d)	Operating voltage 400 V / 50 Hz, or (pls. specify)	
e)	Control voltage 42 V / 50 Hz, or (pls. specify)	
f)	Lifting speed, standard or (pls. specify)	
g)	Weight distribution: about equal unequal: Indicate site plan rolling surface load	
h)	Estimated load cycles (at which height) per hour per work day multiple shift operation?	

III. Installation

Will the lifting table be installed in a pit leaving the platform in lowered position on floor level? Will the lifting table be free-standing?	
Will the platform have to be reinforced for a wheel pressure of 5 t (= 10 t axle load) to allow crossing of lorries?	

VI. Operation

a)	Standard push-button pendant control for lifting and lowering functions, cable length 3m (dead man's control)	
b)	Optionally the control can be equipped with a key operated switch	
c)	alternatively with a foot operated switch	
d)	In case of time-relay control (e.g. by photo cell) we kindly ask for a detailed description about how the control should be designed.	

Columbus McKinnon Engineered Products GmbH
Am Silberpark 2-8
86438 Kissing / Germany
www.cmco.eu/pfaff-silberblau

Contact:
Phone: 08233 / 2121 - 800
Fax: 08233 / 2121 - 805
heben-foerdern@cmco.eu

Questionnaire Hydraulic Lifting Tables - page 2/2

V. Unusual operating conditions that could be important for the choice and function of the lifting table?

a)	Increased dust formation (e.g. cement or saw dust)	
b)	Should the lifting table remain in the extended position for a longer period of time? If so, pls. specify	
c)	Is a special paint finish or coating required? If so, pls. specify	
d)	Will any abnormal environment temperatures occur?	

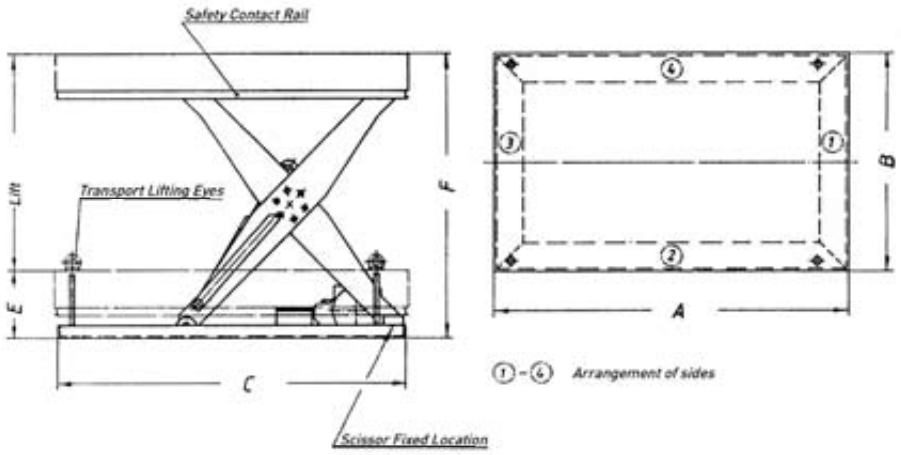
VI. Accessories

Each lifting table will be equipped with standard all-round safety contact bars located under the platform.
Further more, our lifting tables are equipped with overload valve, tube break valve and inspection supports for additional safety.

The following accessories are available optionally:

a)	Tailboards to cover the distance between lifting table and lorry). Pls. specify position and side	
b)	Hand rail (required for passenger operation)	
c)	Frame (castor wheels or undercarriage, manual or electric)	
d)	Special accessories according to your individual needs:	

VII. Sketch



VIII. Requested Quotation

❑ Abbreviated offer ❑ Budget price ❑ Offer deadline latest . . . . . per ❑ Phone ❑ Fax ❑ Mail

❑ Detailed offer ❑ Required delivery date . . . . . .

Enclosures

❑ Drawing . . . . . .

❑ Plan / Dimensional Drawing No. . . . . .

❑ . . . . . .

Date Signature

Columbus McKinnon Engineered Products GmbH
Am Silberpark 2-8
86438 Kissing / Germany
www.cmco.eu/pfaff-silberblau

Contact:
Phone: 08233 / 2121 - 800
Fax: 08233 / 2121 - 805
heben-foerdern@cmco.eu

These user instructions provide a general overview of how to use lifting tables; they do not substitute the device-specific operating instructions! When used correctly, our lifting tables offer the highest level of safety, prevent damage to property and personal injury and have a long service life.

Safety instructions

The lifting tables should only be operated, installed and maintained by: commissioned, qualified personnel (definition of skilled workers in accordance with IEC 364). The devices may only be operated, installed and maintained by qualified personnel, i.e. persons who – as a result of their training, experience, education and knowledge of the relevant standards and regulations, accident prevention regulations and operating conditions – have been authorised by the person responsible for the safety of the system to perform the necessary task and can recognise and prevent any possible dangers while doing so.

Safety components – condition upon delivery:

All our lifting tables are constructed in accordance with the valid standard EN 1570-1. As standard, the condition upon delivery of the safety components includes:

- Safety contact strip

positioned circumferentially beneath the platform. Prevents crushing and shearing hazards.

- Pipe rupture valve

closes as soon as the hydraulics lose pressure, thereby preventing the lifting table from lowering.

- Maintenance supports

Safety supports for maintenance work.

- Dead-man circuit

Raises or lowers only when up/down button is pressed.

- Emergency stop button

Lifting table stops as soon as the emergency stop button is pressed.

Changing the delivery condition

The design of the lifting tables may not be changed, e.g. by installing outside supplied parts, bending, welding, grinding, disconnecting parts, installing bores, removing safety parts or using attachments.

Intended use

The lifting table system is a power-driven lifting platform intended to raise and lower loads and is suitable for installation in an overall machine or lifting facility that is not ready for operation until it has been installed in a building or construction. The manufacturer of the overall machine shall conduct hazard analysis and ensure compliance with EC directives.

Function description:

The hydraulic lifting table is a lifting platform with hydraulic drive. The platform is raised by two hydraulic cylinders using a scissor system. The drive consists of a gear-wheel pump with a three-phase motor. The platform is lowered by opening the 2/2 directional control seat valve. The lowering speed is controlled by an integrated fine throttle valve. Open-circuit guards are installed in the hydraulic cylinders. The hydraulic power unit is fitted with a safety valve. The lifting table is equipped with an electric contactor control and a thermal motor safety switch. Foldable support equipment for maintenance work are attached to the scissors. A circumferential safety contact strip is attached beneath the platform. When activated, the contact strip interrupts the lowering procedure.

Special versions of the lifting table can be supplied with:

- Railing (e.g. to allow operating personnel to travel with the table)
- Protection against access from below
- Overload plate, etc.

Standard lifting tables in accordance with EN 1570-1 may not be used without extensive hazard analysis/type examination as:

- Permanently installed lifting tables that have a cab and travel to defined levels of a building
- Permanently installed lifting tables with a vertical lift of over 2 m that do not have a cab and travel to defined levels of a building
- Power-drive lifting platforms for disabled access
- Lifting tables as ground equipment in aviation
- Lifting tables for use on ships
- Lifting platforms that can be driven
- Vehicle lifting platforms (for vehicle maintenance)
- Lifting tables for fire fighting that can be driven
- Lifting tables that can be driven and used as a forklift, pallet truck or picking elevating truck
- Elevating truck that can be driven at speeds of over 1.6 m/s
- Shelf access equipment

- Lowering and raising equipment on platforms. If the lifting table is used (installed) with a fall height of over 3 m, hazard analysis and/or type examination in accordance with appendix IV of the Machine Guidelines must be performed at the responsibility of the manufacturer of the overall system.

The lifting table is not suitable for the following applications:

- Operation under difficult conditions (e.g. extreme climate, applications in refrigerated areas, strong magnetic fields)
- Operation subject to specific regulations (e.g. explosive atmosphere, mine)
- Handling loads with properties that could cause hazardous situations (e.g. molten metals, acids, radiant materials, particularly brittle loads)
- Hazardous situations that occur during manufacture, transport and installation
- Equipment that is attached to or replaces the load platform
- Installation in systems or machines, control of more than two control stations etc.
- Wireless control

Accident prevention regulations

The regulations applicable in the country of application must be observed. [1)]

EC Directive 2006/42/EC

BGR 500 Ch. 2.10 Lifting platforms

DIN EN 1570-1 Lifting tables

DIN EN 349 Safety of machinery, minimum gaps

DIN EN 294 Safety distances

DIN EN 60204 P1 and P32 Electrical equipment of machines

1) in the respective applicable version

Installation and commissioning
(See also EN 294 and EN 349)

During installation, the applicable regulations for buildings and safe use must be observed. Before installing the lifting table, the requirements must be met at the point of operation. Depending on the lifting table design, the assembly pit must be constructed according to the installation pit plan.

Before installing the lifting table, the requirements must be met at the point of operation. In the case of outdoor installation, it is essential that drainage with an oil separator (according to local construction regulations) takes place in accordance with the installation pit plan.

In the case of installation without an assembly pit, it is essential that safety measure are taken to prevent injury resulting from crushing and shearing points between the base frame and the scissors (e.g. sheet metal covering).

Instructions for use

- To avoid injury, safety shoes must be worn at all times!
- Standing under the lifting device is prohibited.
- Standing on the platform and travelling on the platform of lifting tables that are not set up for this purpose is prohibited.
- During operation, standing within the lifting table‘s range of movement is not permitted.
- Before and during operation, the safety functions (contact strip, limit switch, safety valves, etc.) must be checked at regular intervals.
- Safety devices may not be disabled or used incorrectly.
- Operation must be stopped immediately if defects are found.
- The lifting platform may not be loaded in excess of the permitted load capacity/load distribution.
- The load must be evenly distributed. If the load distribution is uneven, the load must be reduced (see graphic).
- Loads must be placed and secured on the platform in such a way to prevent unintentional position changes.
- The load is not permitted to overlap the platform.
- The lifting table and load must be observed for the duration of the entire lifting process.
- It is not permitted to climb up the lifting device or climb on the load.
- The control station must be arranged in such a way that the operator is unimpeded in using the controls and is not endangered by the load, movement of the lifting platform or parts of the platform and is a no risk of being hit should the load fall off.
- Lifting platforms may only be operated and controlled from the designated control stations intended for this purpose.
- Only persons who have been trained in the operation of the lifting platforms and who have proven their ability to do so to the facility operator may be permitted to independently operate lifting platforms. They must be commissioned with the operation of the lifting platform.
- If several persons are working on the lifting platform at the same time, a supervisor must be appointed.
- The operator must ensure that any movements of the platform do not endanger themselves or other people.
- When leaving the control station, the lifting table must be secured against unauthorised operation.
- For all work on the extended lifting table, the load must be removed from the platform and the supports engaged. Turn off main switch and lock.
- Only capable specialists who are familiar with the operating instructions and BGR 500 Ch. 2.10 as well as EN 1570-1 are to be commissioned with maintenance and repair work.
- Following extensive maintenance/repair work, the lifting table must be tested in accordance with EN 1570-1 Appendix C.

- Following repair work, tests must be carried out to ensure the device is working properly.
- The tracks of the rollers must be kept clean and free from foreign objects at all times.

Safety distances

The lifting table must be set up in such a way that crushing and shearing points between moving parts and between moving and stationary parts are avoided by means of sufficient safety distances.

The distances are as follows:

For fingers
a = 25 mm

For toes
a = 50 mm

For hands
a = 100mm

For arms and clenched fists
a = 120 mm

For feet
a = 120 mm

For the body
a = 500mm

To prevent risk of injury to operating personnel or anyone else, other measures can also be taken as an alternative to these safety distances.

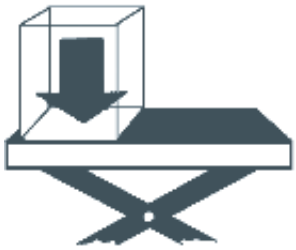
The following alternatives are recommended, although some of the measures on their own are not sufficient in certain cases:

- Covers
- Safety fences
- Deflectors
- Contact-less sensors/contact-reactive disconnecting devices
- Several control units that must be operated simultaneously. In places where the machine is wholly encapsulated by a secure protective cover or in places where it is „secure due to the installation position“, the specified safety distances are not required. If the machine is only partially encapsulated, the safety distances or an equivalent alternative is necessary on the other parts of the machine.

Load distribution

A

Evenly distributed
surface loading 100%



B

One-sided load distributed
on ½ of platform length 50%

C

One-sided load distributed
on ½ of platform length 30%

D

Corner loading distributed
on ½ platform length 30%

E

Rolling, centred load 50%
any load max. 30%

Consulting

To ensure that your new product, your lifting system or your turn-key system is tailored exactly to the planned application, we like to take enough time for consulting. Only if the specification of the tasks is 100% accurate can success be guaranteed for you and for us once the project has been completed. Thinking of the consequences in advance is what we understand a partnership to be. And we call it cost effectiveness. It is impossible to replace personal contact. Our service network guarantees short channels and continuous dialogue. Put us to the test. Make use of uncomplicated meeting scheduling via e-mail with the keyword ‚consulting'.

One call is all it takes: +49 (0) 8233/2121-888 or
e-mail: heben-foerdern@cmco.eu

Maintenance

Regular system checks prevent failure costs arising in the first place. In the areas Service and Safety, Pfaff-silberblau offers maintenance as well as checks in accordance with accident prevention regulations for all types of lifting gear, such as hand stackers, hoists, cable winches, spindle lifting elements, underfloor lifting systems and lifting jacks. These services also offered for systems and products made by different manufacturers. You decide yourself what your maintenance contract includes. Contact us!

One call is all it takes: +49 (0) 8233/2121-8150 or
e-mail: service.kissing@cmco.eu

Repair service

Good advice doesn't have to be expensive. If you have a technical question, simply call our experienced technical advisor. An insider tip is often all it takes to get the system up and running again in no time. It goes without saying that our Service team is available repairs and testing in-house or on-site at the customer's premises. Qualified service technicians solve complex faults directly on-site and ensure that unnecessary delays in your logistics chain are avoided.

One call is all it takes: +49 (0) 8233/2121-8150 or
e-mail: service.kissing@cmco.eu

Replacement part service

We maintain warehouse stock of the most common wear parts for all our product groups. Additionally, we have also put together replacement part sets for you that include the most important components, ensuring that, in normal cases, you have all the most important parts on-site within 48 hours. Contractual partners throughout Germany and our global branches allow for the shortest and fastest possible route for your replacement parts from Pfaff-silberblau.

One call is all it takes: +49 (0) 8233/2121-888 or
e-mail: service.kissing@cmco.eu

Movability is question of creative technology

People in motion

The point at which people's own strength is not sufficient to grip, move, lift and position loads is where the work of COLUMBUS McKINNON Engineered Products with the Pfaff-silberblau brand begins. And has done for 140 years – throughout which numerous generations of our engineers have accompanied the industry development of lifting and handling technology with increasingly sophisticated, complex technical methods. And not just that: they have always been one step ahead. Quality, safety and service are fixed components of our corporate philosophy. And the consequence is just as logical: certification in accordance with DIN EN ISO 9001:2008 by DQS.

A flexible size

Our medium-sized company has many advantages for our customers. We are large – high-capacity but not restricted by bureaucracy. We are small – maintain short routes in and outside the company. That saves time and money. Or to use the customers' terminology: flexibility, proximity and speed. The corporate divisions motion technology, lifting and material handling equipment as well as rail technology are not hermetically separated from one another. Why should they be? Important information affects all aspects and knowledge transfer is valuable capital for industry orientation.

It is our duty

Product quality is important but not everything. We don't forget what this success is based on every day: people with their knowledge and nature that lends us the raw materials. Because we take our responsibility so seriously, we have committed ourselves – as part of a so-called continuous improvement programme (CIP) certified in accordance with ISO 9001 – to do our utmost to preserve regenerative raw materials and energy sources and to reduce the deployment of environmentally unfriendly materials by at least 10% within one year.

Welcome to the world of „lift, turn and move". Follow this signpost through COLUMBUS McKINNON Engineered Products. And we are sure you'll find many ways of making your own activities even more efficient – and more convenient, of course. We take pleasure in inspiring you with new ideas and a new dimension of safety at work.

Look forward to discovering the COLUMBUS McKINNON Engineered Products company and the Pfaff-silberblau brand:

- Lifting and material handling equipment
- Motion technology
- Rail technology

The world of „lift, turn and move" is open around the clock.

Reg.-Nr. 054396 QM08

Just one click to our Internet page at
www.cmco.eu/pfaff-silberblau

Deutschland
COLUMBUS McKINNON Industrial Products GmbH*
Am Lindenkamp 31
42549 Velbert
Phone: +49 (0) 2051/600-0
www.cmco.eu, www.yale.de

COLUMBUS McKINNON Engineered Products GmbH*
Am Silberpark 2-8
86438 Kissing
Phone: +49 (0) 8233/2121-888
www.cmco.eu, www.pfaff-silberblau.com

Frankreich
COLUMBUS McKINNON France SARL*
Zone Industrielle des Forges
18108 Vierzon Cedex
Phone: +33 (0) 248/71 85 70
www.cmco-france.com

Großbritannien
Yale Industrial Products
Eine Division der
COLUMBUS McKINNON Corporation Ltd.*
Knutsford Way, Sealand Industrial Estate
Chester CH1 4NZ
Phone: +44 (0) 1244 375375
www.yaleproducts.com

Yale Industrial Products (Nordirland)
Eine Division der
COLUMBUS McKINNON Corporation Ltd.
Unit 1A, The Ferguson Centre
57-59 Manse Road, Newtownabbey, BT36 6RW
Phone: +44 (0) 2890 840697
www.yaleproducts.com

Spanien und Portugal
COLUMBUS McKINNON Ibérica S.L.U.
Ctra. de la Esclusa, 21 acc. A
41011 Sevilla
Phone: +34 954 29 89 40
www.yaleiberica.com

COLUMBUS McKINNON Ibérica S.L.U.
Rua Poseidón, 2 (Polg. Icaria)
15179 Perillo-Oleiros (A Coruña)
Phone: +34 981 63 95 91
www.yaleiberica.com

COLUMBUS McKINNON Ibérica S.L.U.
Polg. Ind. Empresarium
Calle Retama, no 25 - Nave B-19
50720 Zaragoza
Phone: +34 876 26 26 75
www.yaleiberica.com

Österreich
COLUMBUS McKINNON Austria GmbH*
Gewerbepark, Wiener Straße 132a
2511 Pfaffstätten
Phone: +43 (0) 22 52/46 066-0
www.cmco.at, www.yale.at

Schweiz
COLUMBUS McKINNON Switzerland AG
Dällikerstraße 25
8107 BUCHS/ZH
Phone: +41 (0) 448 51 55 77
www.cmco.ch

Polen
COLUMBUS McKINNON Polska Sp.z.o.o.
Ul. Owsiana 14
62-064 Plewiska
Phone: +48 (0) 61 656 66 22
www.pfaff.info.pl

Ungarn
COLUMBUS McKINNON Hungary Kft.
Vásárhelyi út 5. VI ép
8000 Székesfehérvár
Phone: +36 (22) 546-720
www.yale.de

Südafrika
COLUMBUS McKINNON Corporation (Pty) Ltd.*
P.O. Box 15557
Westmead, 3608
Telefon: +27 (0) 31/700 43 88
www.cmworks.co.za

Yale Engineering Products (Pty) Ltd.
12 Laser Park Square, 34 Zeiss Rd.
Laser Park Industrial Area, Honeydew
Phone: +27 (0) 11/794 29 10
www.yalejhb.co.za

Yale Lifting & Mining Products (Pty) Ltd.
P.O. Box 592
Magaliesburg, 1791
Phone: +27 (0) 14/577 26 07
www.yale.co.za

Italien
COLUMBUS McKINNON Italia srl
Via Picasso, 32
20025 Legnano (MI)
Phone: +39 (0) 331/57 63 29
www.cmco.eu

Niederlande
COLUMBUS McKINNON Benelux B.V.*
Grotenoord 30
3341 LT Hendrik Ido Ambacht
Phone: +31 (0) 78/68 25 967
www.yaletakels.nl

Russland
COLUMBUS McKINNON Russia LLC
Chimitscheski Pereulok, 1, Lit. AB
Building 72, Office 33
198095 St. Petersburg
Phone: +7 (812) 322 68 38
www.yale.de

China
Hangzhou LILA Lifting and Lashing Co. Ltd.*
Nanhuan Road, Zhijiang Hi-tech Park
Hangzhou High-tech Industry Development Zone
Zhejiang Province
Phone: +86 10 85 23 63 86
www.yale-cn.com

COLUMBUS McKINNON (Hangzhou) Industrial Products Co. Ltd.*
Xiaoshan, Yiqiao, Zhejiang Province
Postcode 311256
Telefon: +86 10 85 23 63 86
www.yale-cn.com

Pfaff-silberblau China
3350 Nanhuan Rd. Zhijiang Industrial Park
Hangzhou Hi-tech Zone
Zhejiang Province, 310053
Phone: +86 57 18 77 58 548
www.pfaff-silberblau.com

Thailand
Yale Industrial Products Asia Co. Ltd.*
525 Raj-u-thit Road
Hatyai, Songkhla 90110
Phone: +66 (0) 74 25 27 62
www.yale-thailand.com

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COLUMBUS McKINNON

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