

Kombi - DS



7011-DS
Kombi PLUS



Akku-Allroundgeräte
Kombi - DS

zum manuellen Drehen um +/- 90 Grad
zum manuellen Schwenken um 90 Grad

eingebaute Vakuumpumpe wahlweise
für 110 oder 230 Volt Netzspannung
zum Laden oder Betreiben der Geräte

auf Wunsch mit Fernbedienung

Accumulator-Allround device
Kombi - DS

for manual turning of +/- 90 degrees
for manual tilting of 90 degrees

built-in vacuum pump
for optional 110 or 230 volt supply voltage
for charging or operating of the device

remote control on request

Appareil à pompe à vide et batterie
intégrées Kombi - DS

pour rotation manuelle +/- 90°
pour basculement manuel 90°

Pompe à vide intégrée
alimentation 110 ou 230 Volts au choix
pour autonomie complète de l'appareil

Boîtier de commande en option

Basisgerät kombinierbar mit:
Base Device combinable with:
Appareil Standart combiné avec:
Equipo básico combinable con:

- 7003-DS
- 7003-CDS
- 7003-ADS
- 7003-DSG



7011-....

Basisgerät
Base Device
Appareil Standart
Equipo básico

Acumuladores universales

Kombi - DS

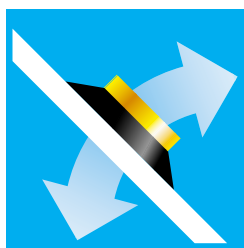
Para girar manualmente +/- 90 grados

Para oscilar manualmente 90 grados

Bomba de vacío instalada opcionalmente
para una tensión de red de 110 o 230 voltios
para la carga o utilización de los
acumuladores

con mando a distancia, si se desea

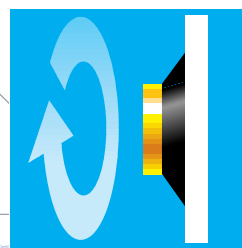
Schwenken +/- 90°
Tilting +/- 90°
Basculement +/- 90°
Oscilación +/- 90°



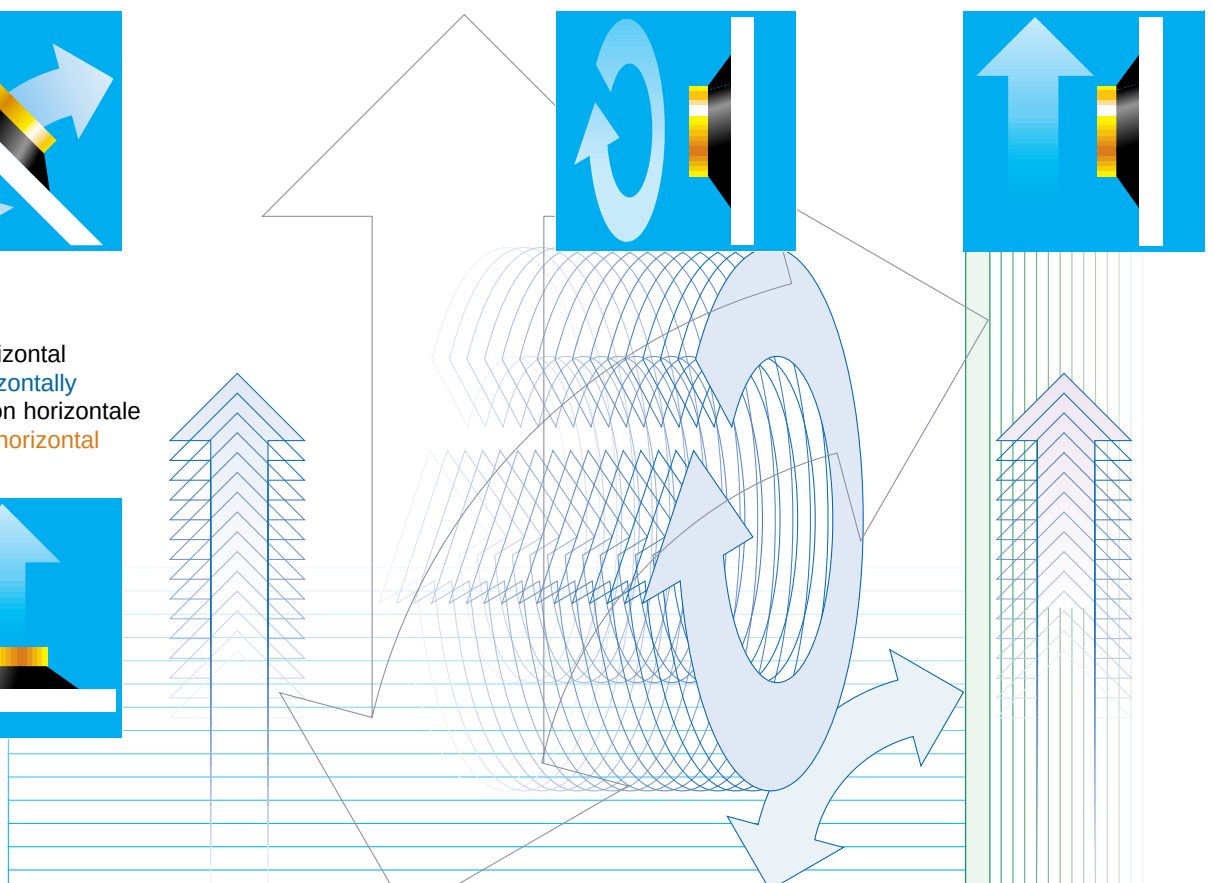
Heben horizontal
Lifting horizontally
Manutention horizontale
Elevación horizontal

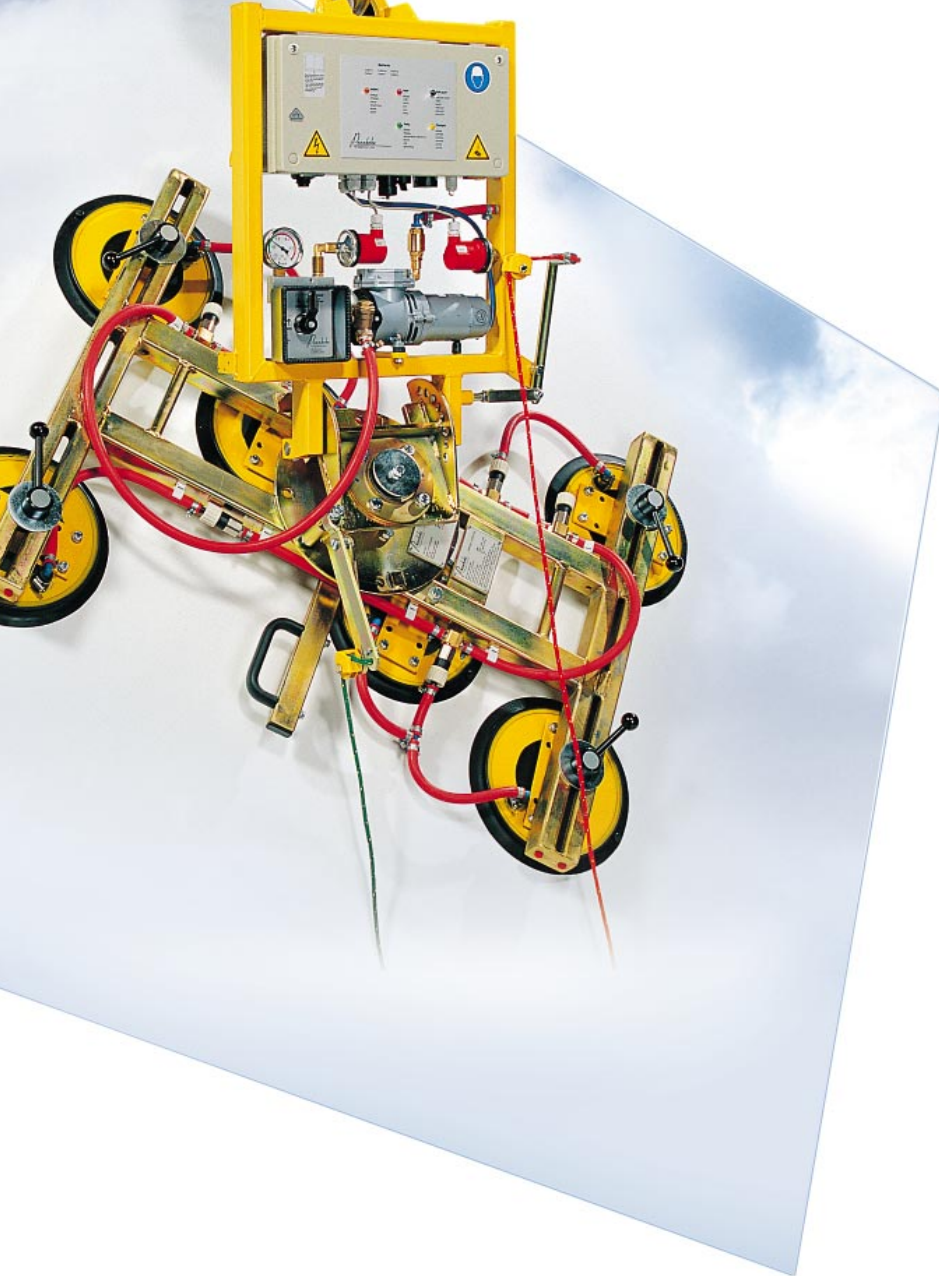


Drehen +/- 90°
Turning +/- 90°
Rotation +/- 90°
Giro +/- 90°



Heben vertikal
Lifting vertically
Manutention verticale
Elevación vertical





7011-DS
Kombi PLUS

Kombi 7011-DS

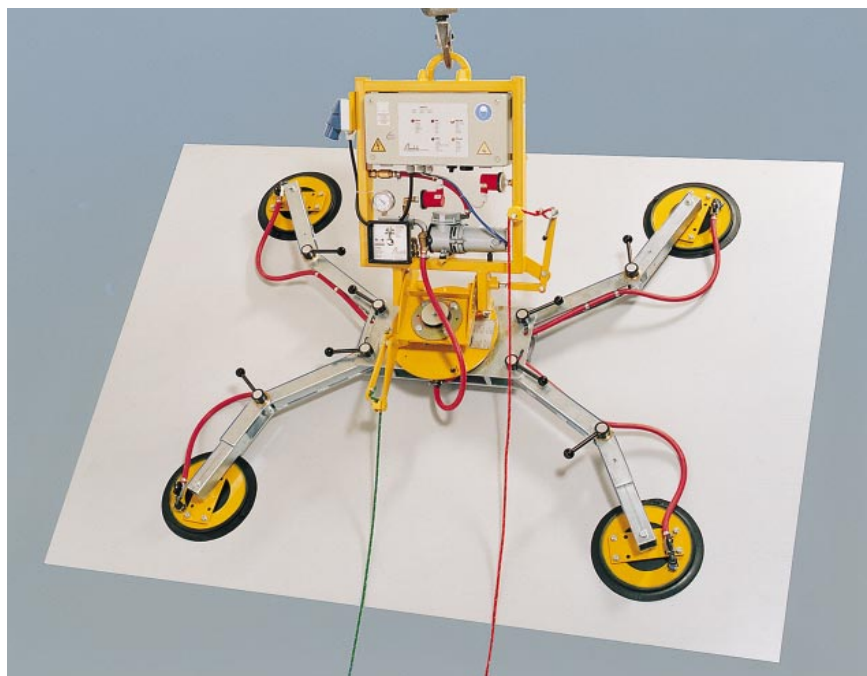
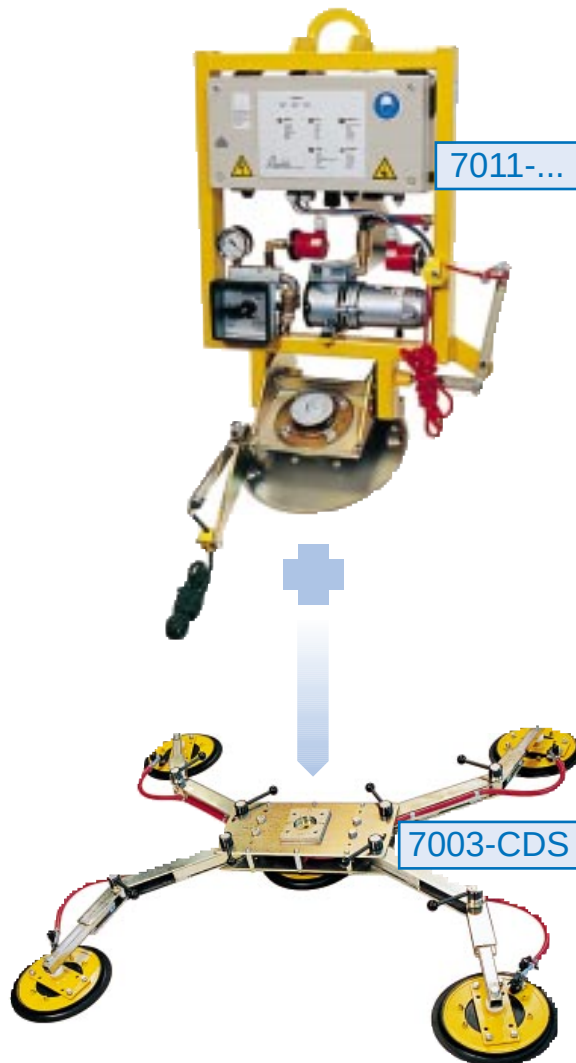
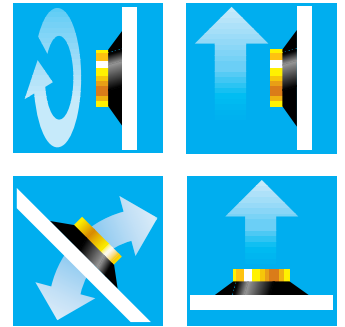
- zum flächenstabilen, vertikalen Heben und Transportieren
- für maximal 600 kg Transportgewicht
- for planar stabilized, vertical lifting and transporting
- for maximum 600 kg transport weight
- Levage et transport vertical
- Pour un poids maximum de 600 kg
- para una elevación y transporte vertical, en superficie estable
- para un máximo de 600 kg de peso de transporte



7011-...

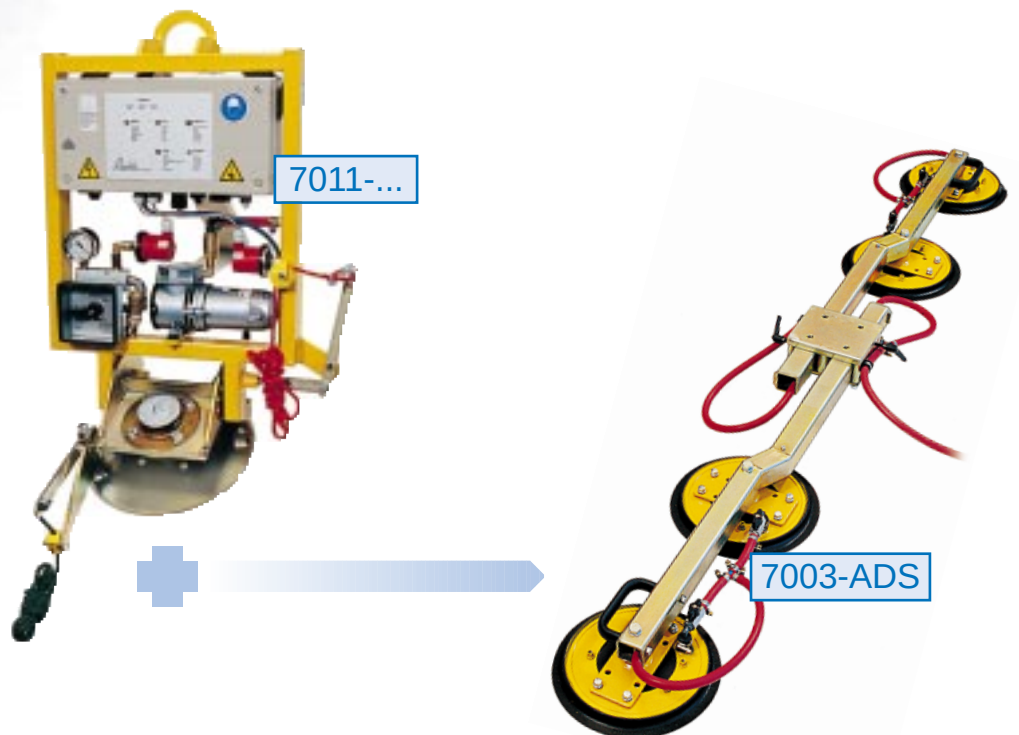


7003-DS



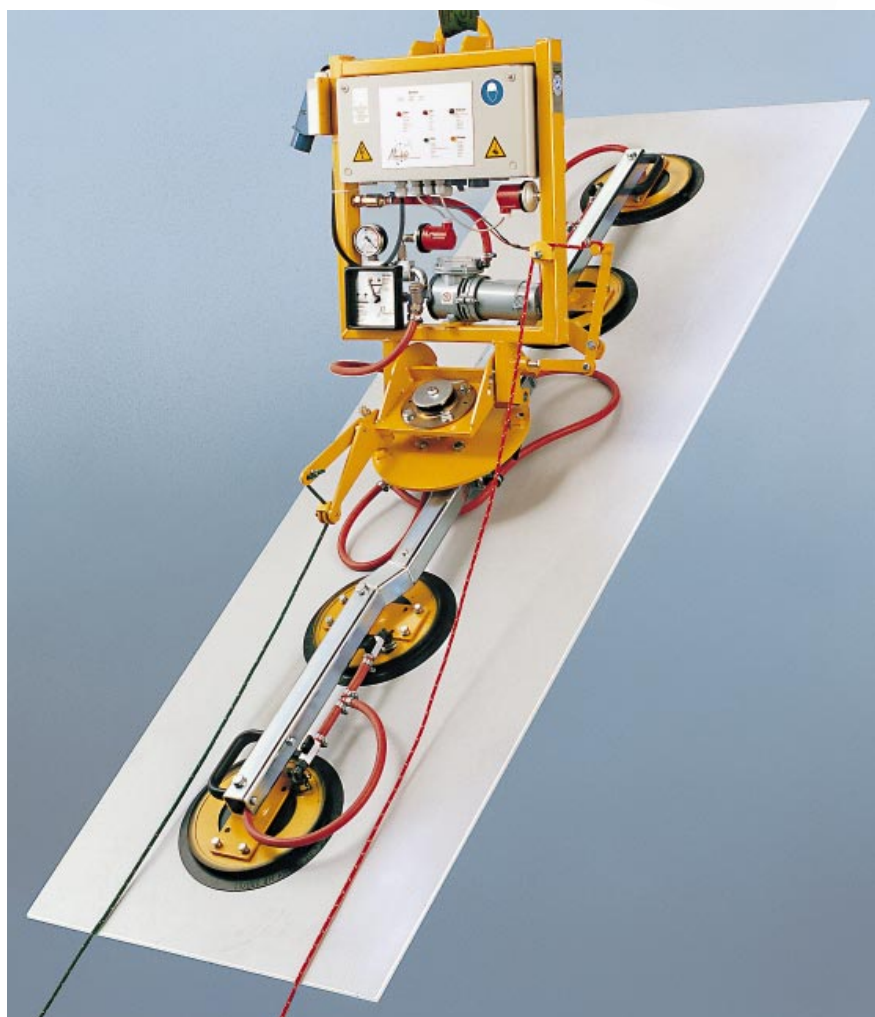
Kombi 7011-CDS

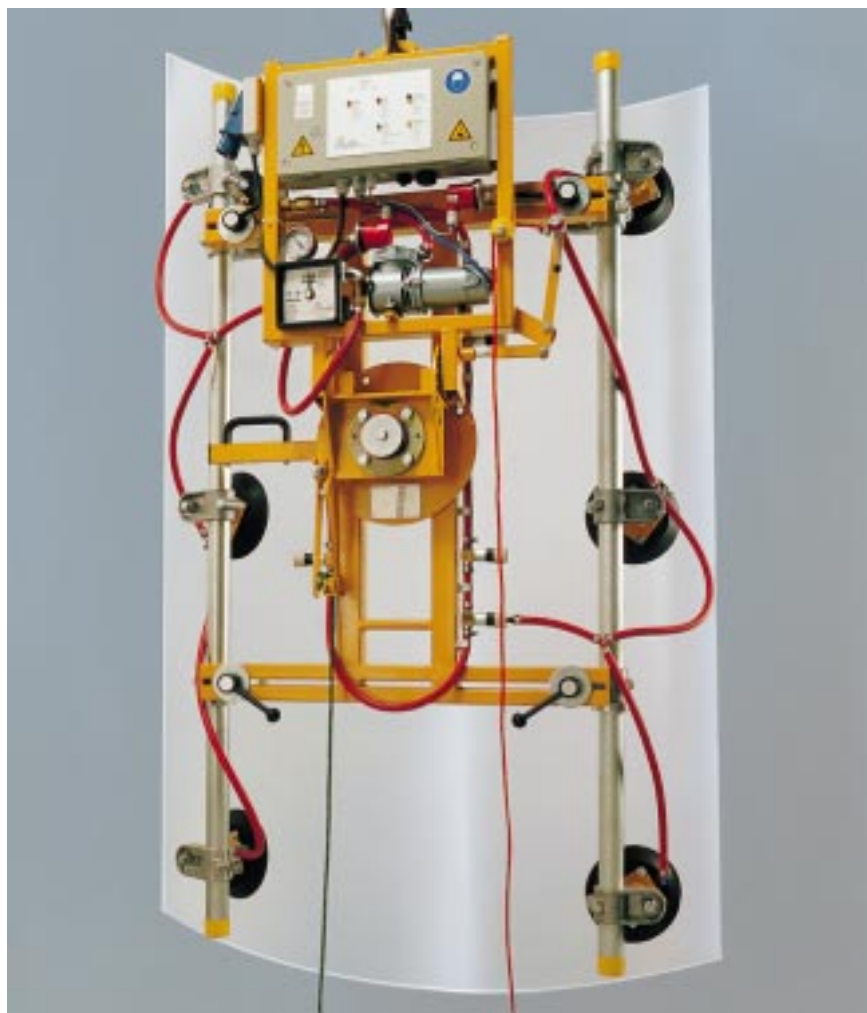
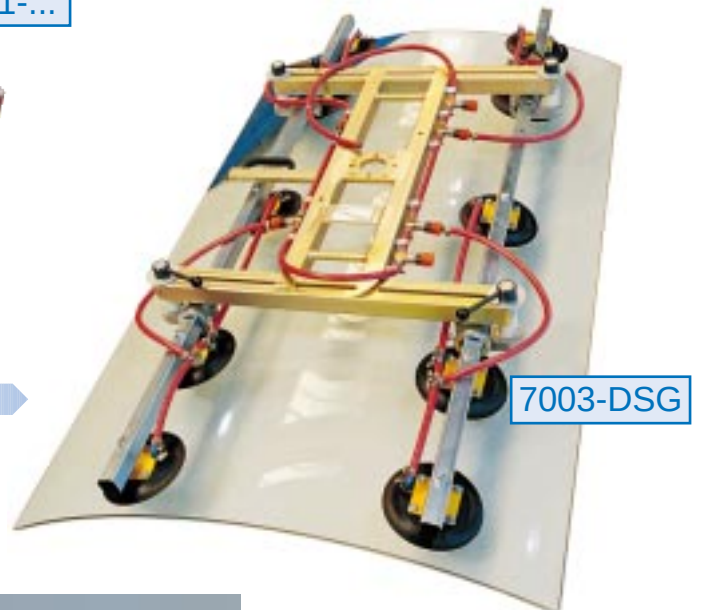
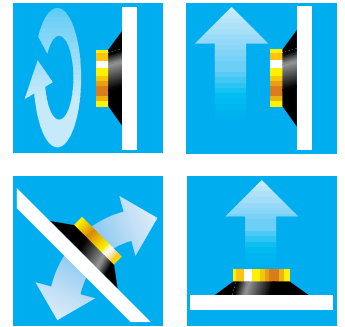
- zum Transportieren geometrisch unterschiedlichster Formen
- für maximal 400 kg Transportgewicht
- for transport of different geometric shapes
- for maximum 400 kg transport weight
- Transport des formes géométriques les plus variées
- Pour un poids maximum de 400 kg
- para el transporte geométrico de las más diversas formas
- para un máximo de 400 kg de peso de transporte



Kombi 7011-ADS

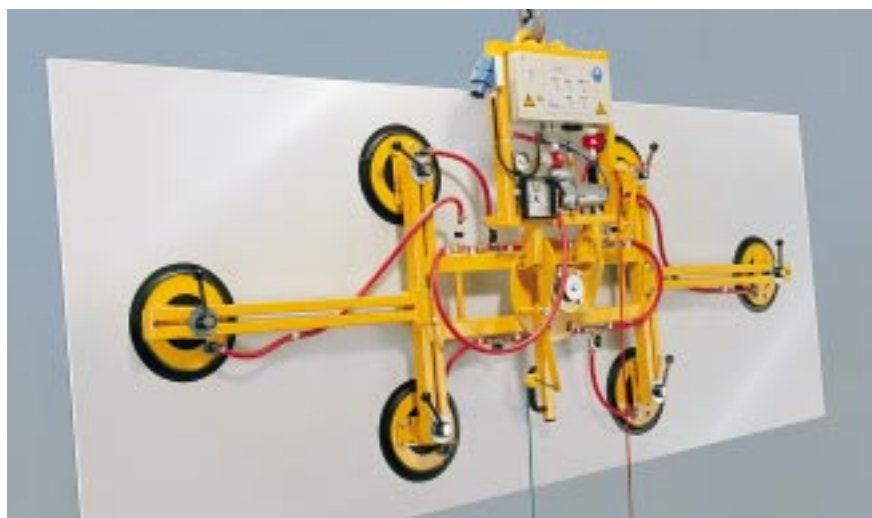
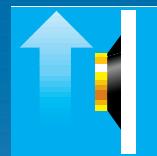
- für die Verglasung von Wintergärten oder schmalen, langen Streifen
- für maximal 400 kg Transportgewicht
- for glazing of conservatories or narrow, long strips
- for maximum 400 kg transport weight
- Installation de vitrages de jardins d'hiver ou de volumes longs ou étroits
- Pour un poids maximum de 400 kg
- para el acristalamiento de invernaderos o bandas estrechas y largas
- para un máximo de 400 kg de peso de transporte





Kombi 7011-DSG

- zum Transport gebogener Scheiben für maximal 400 kg Transportgewicht
- for transport of curved panes
- for maximum 400 kg transport weight
- Transport de verres bombés
- Pour un poids maximum de 400 kg
- para el transporte de cristales abombados
- para un máximo de 400 kg de peso de transporte



Bitte fragen Sie nach Details:

Please ask for details:

Veuillez nous contacter pour tous renseignements complémentaires:

Por favor, pregunte acerca de los detalles:

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Flachglastechnik GmbH
Postfach 2654

D 23514 Lübeck

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Telefax: +49 4 51/4 70 08-37
e-mail: info@pannkoke.de
www.pannkoke.com

7003-V/DS

- Verlängerung zur Kombination mit Kombi 7011-DS
- zum vertikalen Transport für Scheiben bis 4,00 m Länge
- Extension arms for combination with Kombi 7011-DS
- for vertical transport of panes up to a length of 4,00 m
- Allongement combiné au Kombi 7011-DS
- pour le transport vertical de volumes jusqu'à longueur 4,00 m
- Prolongación para la combinación con la Kombi 7011-DS
- Para el transporte vertical de cristales de hasta 4,00 m de largo

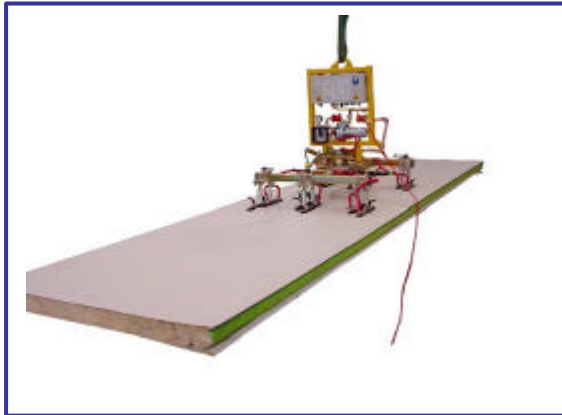
7003-GTW

- Transportwagen für Kombi 7011-DS
2 Bock- und 2 Schwenkrollen
- Transport carriage for Kombi 7011-DS
2 rack- and 2 tilting wheels
- Chariot de transport pour Kombi 7011-DS
2 roulettes fixes et 2 roulettes pivotantes
- Vagón para la Kombi 7011-DS
2 soportes y 2 ruedas pivotantes

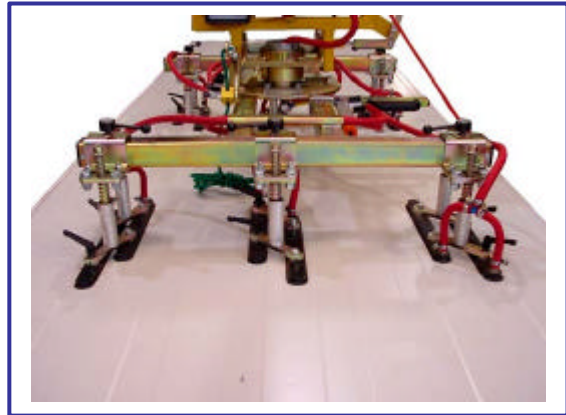
7003-GTKW

- mit zusätzlicher Blechkofferverkleidung
- covered with additional sheet metal case
- avec protection en tôle
- con recubrimiento adicional de caja de chapa

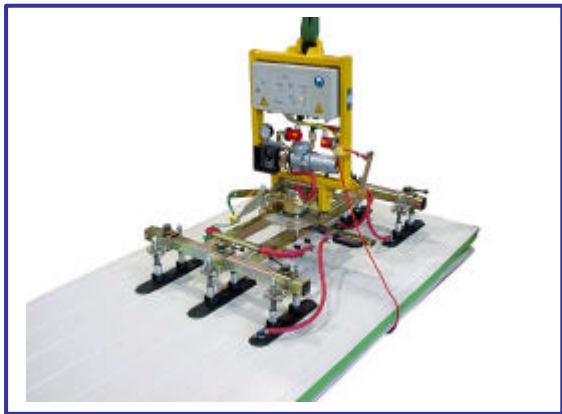
Special design of accu-device Kombi 7011-DS
Sonderausführung vom Akku-Gerät Kombi 7011-DS



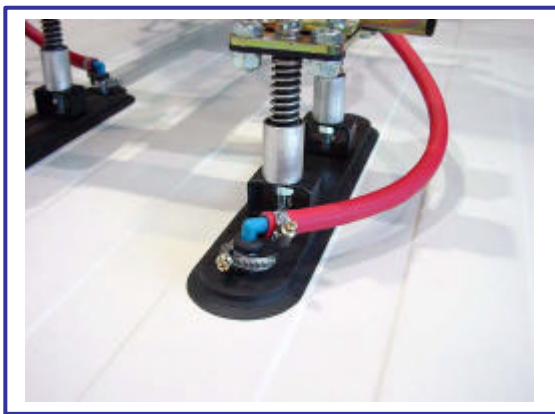
**Accu Device
Kombi
7011-DS
with suction cups 543**



**Akku-Gerät
Kombi
7011-DS
mit Saugern 543**



**Accu Device
Kombi
7011-DS
with suction cups 544-80**



**Akku-Gerät
Kombi
7011-DS
mit Saugern 544-80**

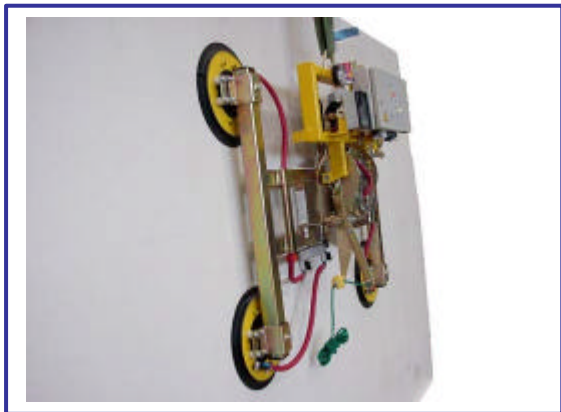
Special design of accu-device Kombi 7011-DS
Sonderausführung vom Akku-Gerät Kombi 7011-DS



**Accu Device
Kombi
7011-DS SO01**
with adjustable suspension eye
and holding device for a
counterweight



**Akku-Gerät
Kombi
7011-DS SO01**
mit verstellbarer Aufhängeöse
und Haltevorrichtung für ein
Gegengewicht

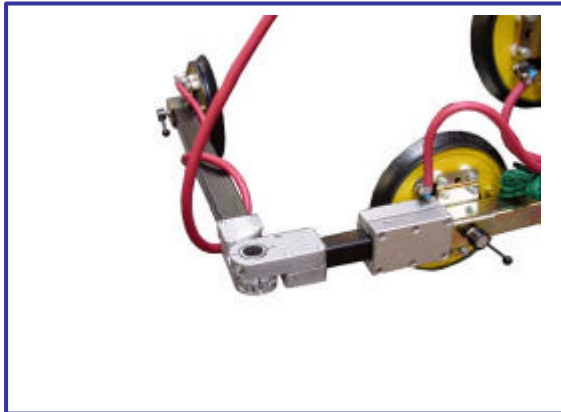


**Accu Device
Kombi
7011-DS SO02**
with short suspension frame

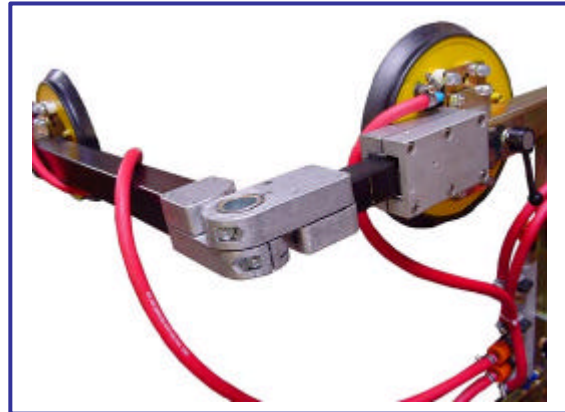


**Akku-Gerät
Kombi
7011-DS SO02**
mit kurzem Aufhängerahmen

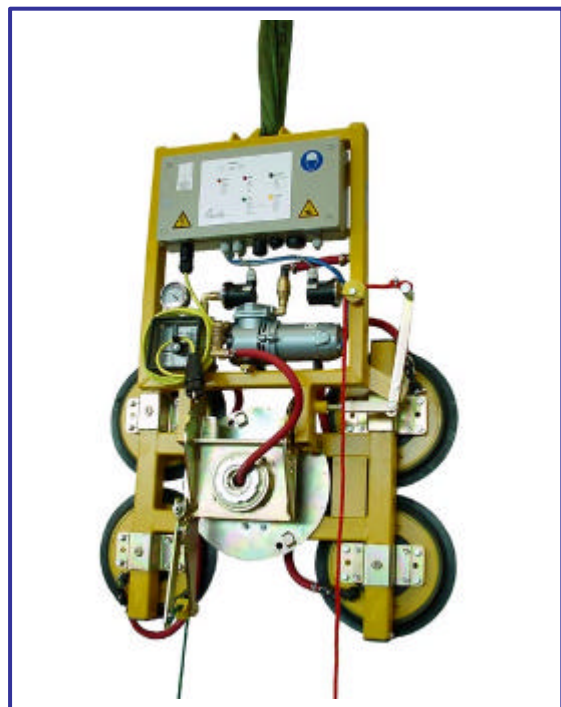
Special design of accu-device Kombi 7011-DS
Sonderausführung vom Akku-Gerät Kombi 7011-DS



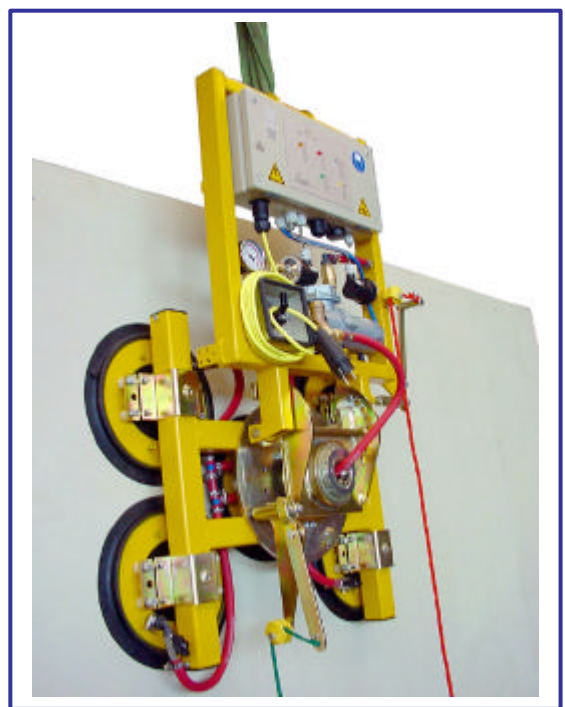
**Accu Device
Kombi
7011-DS SO03**
with support suction cups for one
corner



**Akku-Gerät
Kombi
7011-DS SO03**
mit Unterstützungssauger für eine
Ecke



**Accu Device
Kombi
7011-DS SO04**
with smaller suction frame



**Akku-Gerät
Kombi
7011-DS SO04**
mit kleinerem Saugerrahmen

Groups of Devices Vacuum Lifting Device

Type Description	Description	Group of Device
Frame	Carrying Frames without Vacuum Generation	7000
Kombi	Carrying Frames with mains-operated, electric Vacuum Pump	7001
Vacuum Unit	mains-operated, electric Vacuum Pump	7002
Frame	Carrying Frames with manual operated Vacuum Pump	7004
Venturi Device	Carrying Frames with compressed air-operated Vacuum Pump / Venturi jet(s)	7005
Accu (Rechargeable Battery) Device Kombi	Carrying Frames with mains-independent, electric (rechargeable battery-operated) Vacuum Pump	7011
Accu (Rechargeable Battery) Vacuum Unit	mains-independent, electric (rechargeable battery-operated) Vacuum Pump	7012
Vacuum Lifting Device	Carrying Frames with electric or compressed air-operated Vacuum Pump and pneumatic cylinder or electric spindle drive	7035 7021
Manipulation Device	Carrying Frames with compressed air-operated Vacuum Pump / Venturi jet(s) and pneumatic cylinder or pneumatic cylinders	7025
Kombi	Carrying Frames with mains-operated, electric Vacuum Pump and Electric Drive	7031

Groups of Devices Vacuum Lifting Device

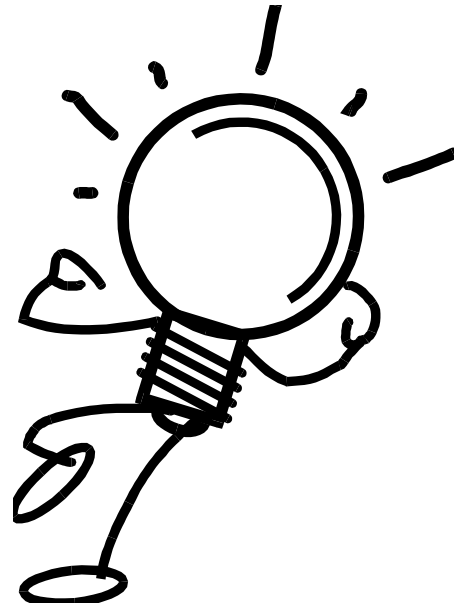
Kombi	Carrying Frames with mains operated, electric Vacuum Pump <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7201
Vacuum Unit	mains operated, electric Vacuum Pump <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7202
Venturi Device	Carrying Frames with air pressure operated Vacuum Pump / suction jet(s) <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7205
Accu (Rechargeable Battery) Device Kombi	Carrying Frames with independent of mains supply, electric (rechargeable battery operated) Vacuum Pump <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7211
Accu (Rechargeable Battery) Vacuum Unit	independent of mains supply, electric (rechargeable battery operated) vacuum pump <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7212
Manipulation Device	Carrying Frames with compressed-air operated Vacuum Pump / suction jet(s) and pneumatic cylinder <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7225
Kombi	Carrying Frames with mains-operated, electric Vacuum Pump and electric drive <i>with 2-circuit-technique for the latest safety standard of the EC</i>	7231
Accu (Rechargeable Battery) Device Kombi	Carrying Frames with independent of mains supply, electric (rechargeable battery operated) Vacuum Pump <i>with 4-circuit-technique for the latest safety standard of the EC</i>	7411

7000-xx Frame Carrying Frame without Vacuum Generation	
Advantage	Disadvantage
low cost of purchase	an additional vacuum generation is necessary
low weight	long vacuum supply line to the frame increases the risk of an untightness in the system
	construction of a 2-circuit-system difficult to execute
	unsuitable for the application at the construction site with long transport ways etc. because of the vacuum supply line

7001-xx Kombi Carrying frame with mains-operated, electric vacuum pump	
Advantage	Disadvantage
complete vacuum lifting device	higher weight
easy installation	follow-up supply line of the mains supply
compact vacuum system without long vacuum supply line	
use of efficient vacuum pumps possible	
electric warning signals at low partial vacuum	
vacuum system is also tight at interrupted electric mains (depends on the lifted material)	

7011-xx Accu-Device Kombi Carrying frame with independent of mains-supply, electric (rechargeable battery (accumulator) operated) vacuum pump	
Advantage	Disadvantage
complete vacuum lifting device	higher weight
easy installation	vacuum pump not adaptable to the efficiency (low capacity)
compact vacuum system without long vacuum supply line	
electric warning signals at low partial vacuum	
no follow-up supply line of the mains supply	

7005-xx Venturi Device Carrying Frame with compressed air operated Vacuum Pump / Suction jet(s)	
Advantage	Disadvantage
complete vacuum lifting device	follow-up supply line of the air pressure system
easy installation	no electric warning signals at low partial vacuum
compact vacuum system without long vacuum supply line	not suitable for construction sites only for the production
use of efficient suction jets possible	
low weight	
Vacuum system is also tight at interrupted air pressure supply (depends on the lifted material)	

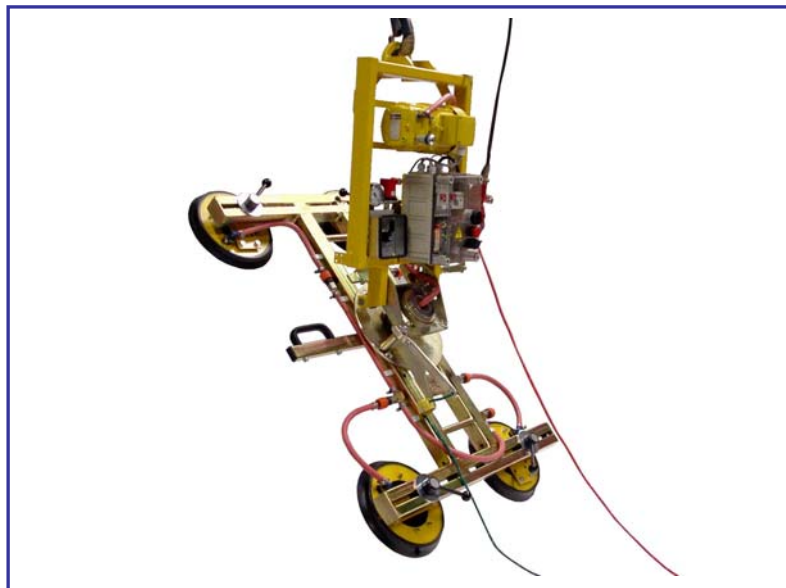


7001-xx

Carrying Frames with mains-operated,
electric Vacuum Pump

Kombi 7001-DS

**For operation on EC
construction sites only
permissible with a
mechanical holding device
according to
EN 13155.**



**for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees**

Description

- **1-circuit vacuum system**
- the vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **Completely closed vacuum circuit**
prevents loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- **Power failure monitoring system**
- multiple row arrangement of suction cups
- suction cups fixed with movable suspension directly on the frame
- distance of suction cups can be adjusted
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°
- detachable extension available

Vacuum generation

- built-in low maintenance vacuum pump (dry running system)
- for mains supply

Control means

- SUCTION/RELEASE via hand valve at the device
or
via cable remote control

Suspension:

crane eye at the carrying frame

Max. loading capacity:

600 kg

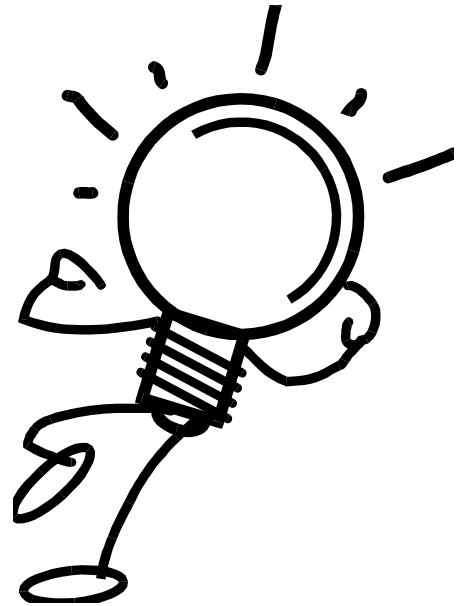
Colour:

yellow / partly zinked

	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees

suitable for lifting		
material properties	gastight	
surface	smooth	
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards	
suction cup type	388	
diameter in action approx. mm	300	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	6	4
loading capacity on smooth and clean surface at 60 % vacuum kg	600	400
dead weight approx. kg	82	78
frame size approx. mm	1300 x 1000	
distance between the suction cups min. approx. mm max. approx. mm		
structural depth approx. mm	290	
output	3.8 m³/h	
voltage	230 Volt 50/60 Hz 1Ph	
item-no.: 7001-DS...	6-0910	4-0910
voltage	110 Volt 50 Hz	
item-no.: 7001-DS...	6-0910-110	4-0910-110
voltage	400 Volt 50/60 Hz 3Ph	
item-no.: 7001-DS...	6-0910-400	4-0910-400
Other frame sizes	on request	
Accessories on request		
item-no.: 388-SCHUTZ	protection cap for suction cup 388	
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE	
item-no.: 7003-VLDS	set extensions (left / right)	
item-no.: 7003-GTW2	transport carriage	

Also available as 2-circuit vacuum lifting device (Type 7201-DS)
in accordance to EN 13155 / prEN 13035.

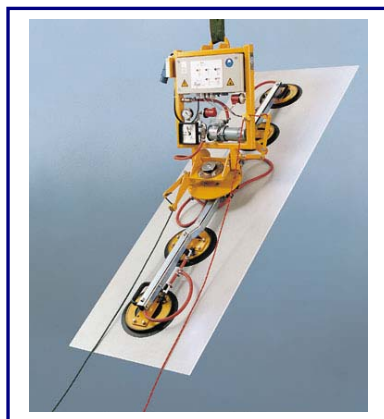


7011-xx

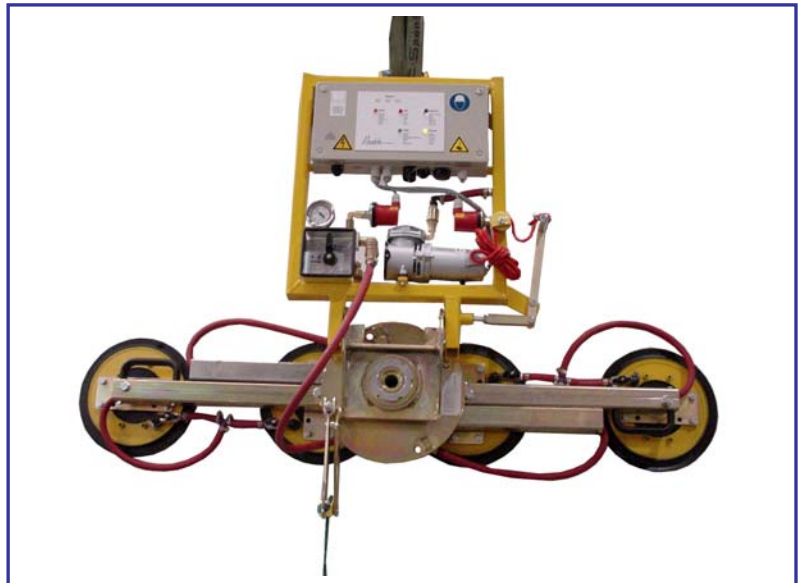
Carrying Frames with mains-independent, electric
(rechargeable battery-operated) Vacuum Pump

Accu-Device Kombi 7011-ADS

**For operation on EC
construction sites only
permissible with a
mechanical holding device
according to
EN 13155.**



	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees



**for lifting and transporting of narrow, long strips
manual turning through 2 x 90 degrees
manual tilting through 90 degrees**

Perfect for glazing of conservatories

Description

- **1-circuit vacuum system**
- the vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **Completely closed vacuum circuit**
prevents loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- single row arrangement of suction cups
- suction cups fixed directly on the carrying bar
- adjustable distance between the suction cups via movable carrying bars
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF directly at the device
- SUCTION/RELEASE via hand valve at the device
optional
via cable remote control
optional
via infrared remote control

Suspension: crane eye at the carrying frame
Max. loading capacity: 400 kg (2.5 m) / 340 kg (3.3 m)
Colour: yellow / partly zinked

suitable for lifting	
material properties	gastight
surface	smooth
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards
suction cup type	388
diameter in action approx. mm	300
suction cup quality	rubber black abrasion possible upto 100° heat resistance
number of suction cups	4
loading capacity	
at carrying bar length 1500 mm on smooth and clean surface at 60 % vacuum kg	400
at carrying bar length 2300 mm on smooth and clean surface at 60 % vacuum kg	340
dead weight approx. kg	67
structural depth approx. mm	250
vacuum infeed connection	9 mm
output	1.5 m³/h
voltage accumulator charger	230 Volt 50/60 Hz 1Ph
item-no.: 7011-ADS...	4-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph
item-no.: 7011-ADS...	4-0910-110

Accessories on request

item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE

**Also available as 2-circuit vacuum lifting device (Type 7211-ADS)
in accordance to EN 13155 / prEN 13035.**

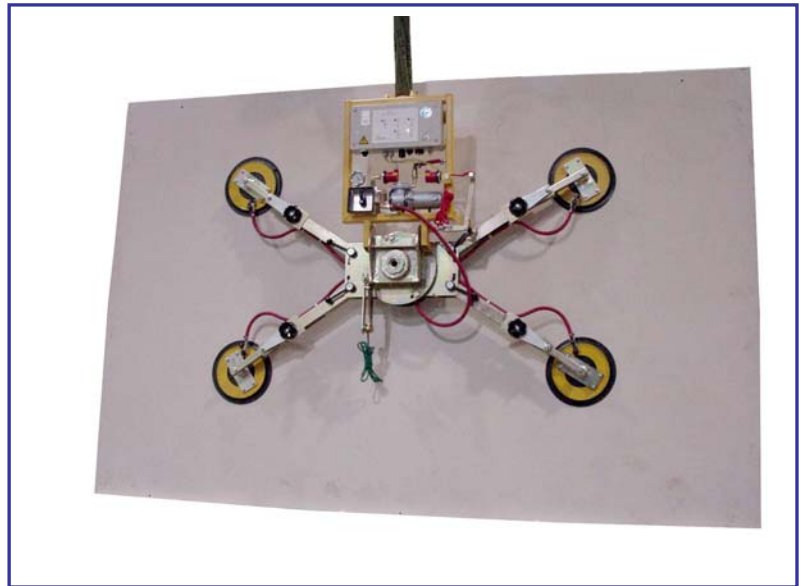


Accu-Device Kombi 7011-CDS

**For operation on EC
construction sites only
permissible with a
mechanical holding device
according to
EN 13155.**



	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees



**for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees
of different geometric shapes**

Description

- **1-circuit vacuum system**
- the vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **Completely closed vacuum circuit**
prevents loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- multiple row arrangement of suction cups
- variable suction frame with adjustable suction arms
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

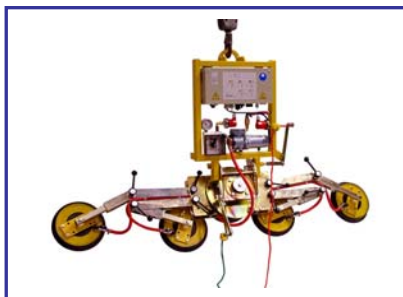
- ON/OFF directly at the device
 - SUCTION/RELEASE via hand valve at the device
- optional
via cable remote control
optional
via infrared remote control

Suspension: crane eye at the carrying frame

Max. loading capacity: 400 kg

Colour: yellow / partly zinked

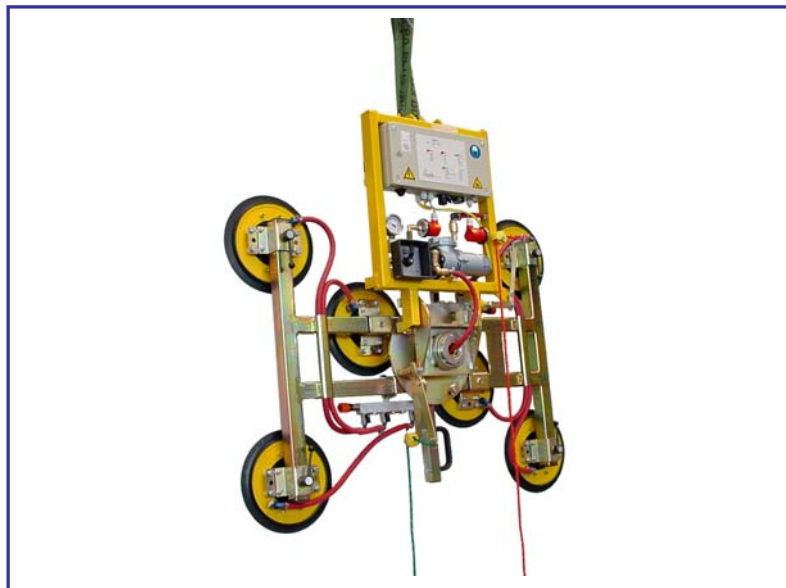
suitable for lifting	
material properties	gastight
surface	smooth
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards
suction cup type	388
diameter in action approx. mm	300
suction cup quality	rubber black abrasion possible upto 100° heat resistance
number of suction cups	5
loading capacity on smooth and clean surface at 60 % vacuum kg	400
distance from cup to cup min. approx. mm	700 x 700
max. approx. mm	1630 x 1360
dead weight approx. kg	97
structural depth approx. mm	260
output	1.5 m³/h
voltage accumulator charger	230 Volt 50/60 Hz 1Ph
item-no.: 7011-CDS...	5-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph
item-no.: 7011-CDS...	5-0910-110
Accessories on request	
item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE



Accu-Device Kombi 7011-DS

**For operation on EC
construction sites only
permissible with a
mechanical holding device
according to
EN 13155.**

	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees



**for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees**

the **perfect** equipment for warehouse and construction site
independent from local power

Description

- **1-circuit vacuum system**
- the vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **Completely closed vacuum circuit**
prevents loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- multiple row arrangement of suction cups
- suction cups fixed with movable suspension directly on the frame
- distance of suction cups can be adjusted
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°
- detachable extension available

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

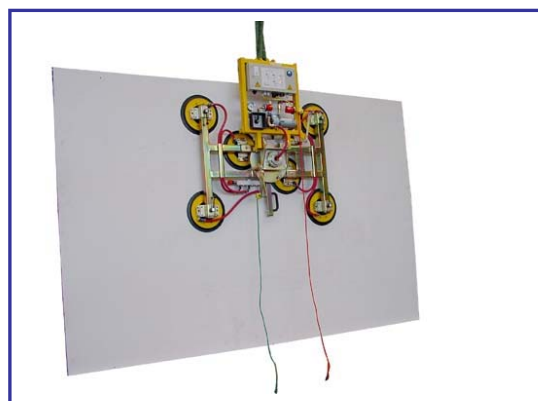
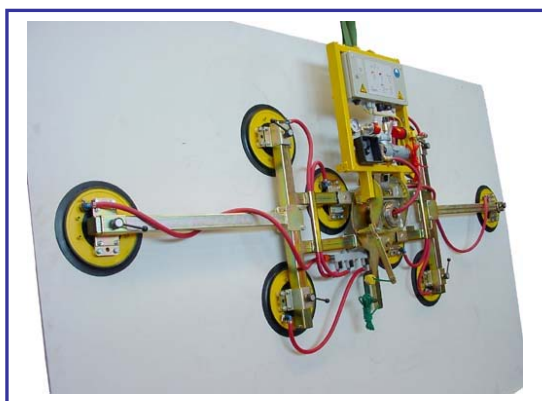
- ON/OFF directly at the device
 - SUCTION/RELEASE via hand valve at the device
optional
via cable remote control
optional
via infrared remote control
crane eye at the carrying frame
- Suspension:**
Max. loading capacity: 600 kg
Colour: yellow / partly zinked

suitable for lifting	gastight	
material properties	smooth	
surface	smooth	
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards	
suction cup type	388	
diameter in action approx. mm	300	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	6	4
loading capacity on smooth and clean surface at 60 % vacuum	kg	
	600	400
dead weight approx. kg	87	82
frame size approx. mm	1300 x 1000	
distance between the suction cups min. approx. mm max. approx. mm		
structural depth approx. mm	290	
output	1.5 m³/h	
voltage accumulator charger	230 Volt 50/60 Hz 1Ph	
item-no.: 7011-DS...	6-0910	4-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph	
item-no.: 7011-DS...	6-0910-110	4-0910-110
Other frame sizes	on request	

Accessories on request

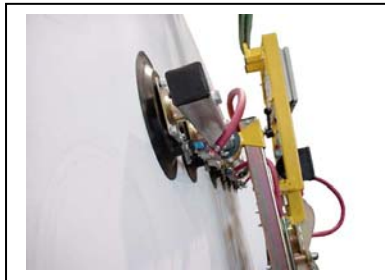
item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE
item-no.: 7003-VLDS	set extensions (left / right)
item-no.: 7003-GTW2	transport carriage

Also available as 2-circuit vacuum lifting device (Type 7211-DS)
in accordance to EN 13155 / prEN 13035.

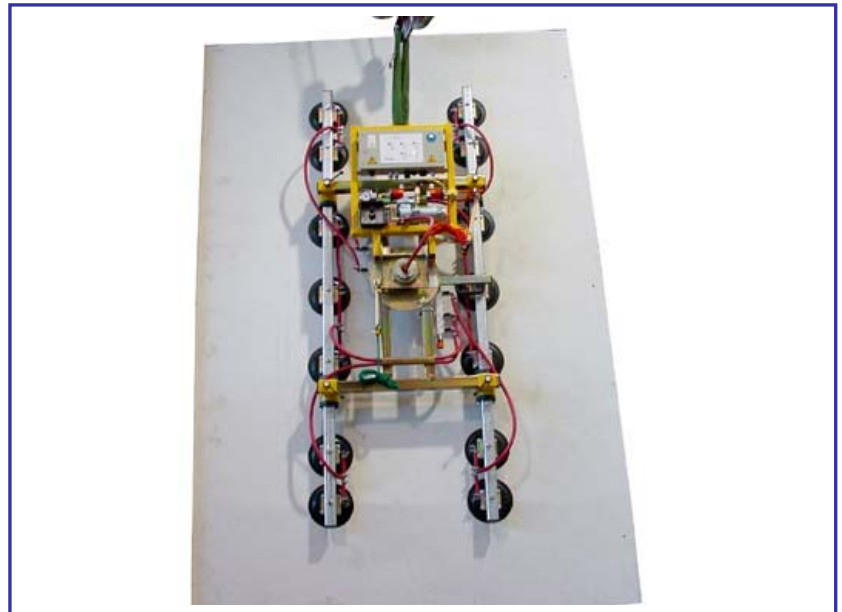


Accu-Device Kombi 7011-DSG

**For operation on EC
construction sites only
permissible with a
mechanical holding device
according to
EN 13155.**



	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees



**for planar-stabilized, vertical
transporting and turning through +/- 90 degrees
of convex and concave curved materials**

Description

- **1-circuit vacuum system**
- the vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **Completely closed vacuum circuit**
prevents loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- multiple row arrangement of suction cups
- suction cups fixed directly on the carrying bar
- carrying bars are turnable on bearings
for minimum radius of 1000 mm
- all suction cups lockable individually
- replaceable suspension bar
in several lengths available
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF
- SUCTION/RELEASE

directly at the device
via hand valve at the device
optional
via cable remote control
optional
via infrared remote control
crane eye at the carrying frame

Suspension:

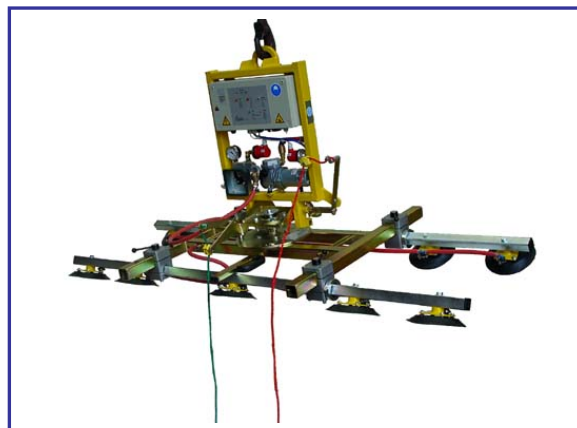
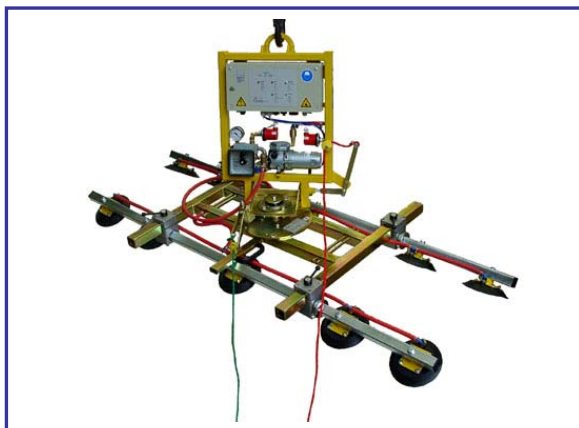
Max. loading capacity:

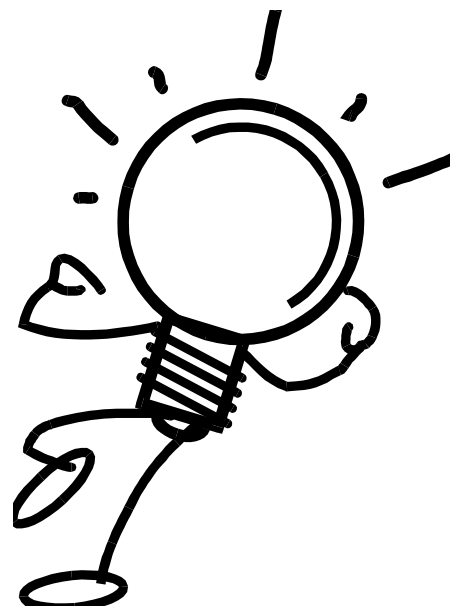
Colour:

400 kg
yellow / partly zinked

suitable for lifting		
material properties	gas-tight	
surface	smooth	
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards	
suction cup type	540	
diameter in action approx. mm	200	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	10	14
loading capacity on smooth and clean surface at 60 % vacuum kg	300	400
number of longitudinal carrying bars	2	
length of the longitudinal carrying bars approx. mm	2000	2000
dead weight approx. kg		
structural depth approx. mm		
output	1.5 m³/h	
voltage accumulator charger	230 Volt 50/60 Hz 1Ph	
item-no.: 7011-DSG...	10-0920	14-0920
voltage accumulator charger	110 Volt 50/60 Hz 1Ph	
item-no.: 7011-DSG...	10-0920-110	14-0920-110
Other frame sizes	on request	
Accessories on request		
item-no.: 540-SCHUTZ	protection cap for suction cup 540	
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE	
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE	

Also available as 2-circuit vacuum lifting device (Type 7211-DSG)
in accordance to EN 13155 / prEN 13035.





7211-XX

Carrying Frames with mains-independent, electric
(rechargeable battery-operated) Vacuum Pump

Accu-Device Kombi 7211-DS Umb

**Retrofitting for operation
on construction sites in
the EC according to
EN 13155**



	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees



for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees

After retrofitting corresponds the device the following description

- increased safety via 2 independent vacuum circuits
each vacuum circuit is designed with 2-fold safety
- according to EN 13155 & prEN 13035-1 & prEN 13035-2
- each vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- 2 completely closed vacuum circuits prevent loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- **Power failure monitoring system**
- multiple row arrangement of suction cups
- adjustable distance between the suction cups (up to 6 suction cups)
not adjustable distance between the suction cups (at more than 6 suction cups)
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

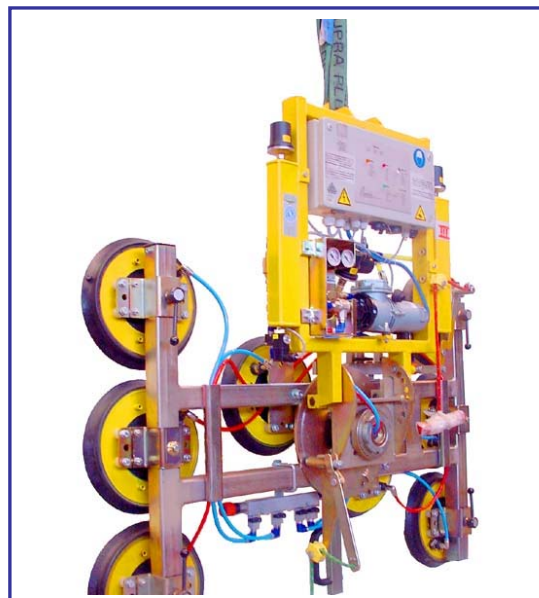
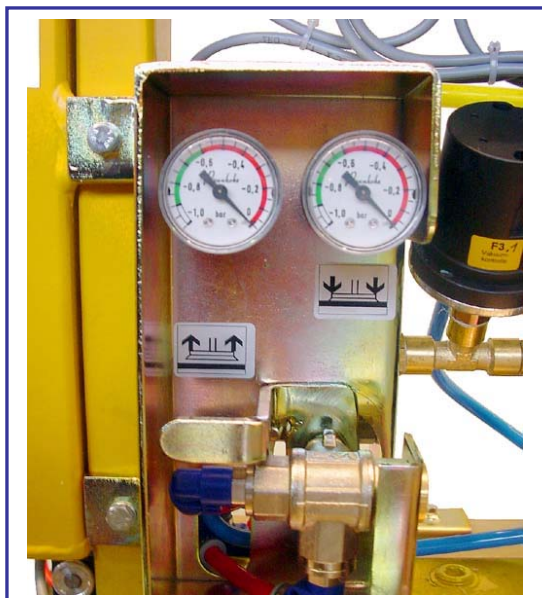
- ON/OFF directly at the device
 - SUCTION/RELEASE via hand valve at the device
 - optional via cable remote control
 - optional via infrared remote control
 - crane eye at the carrying frame
- Suspension:**
Max. loading capacity: 600 kg (intra-company)
400 kg (on construction sites)
- Colour:** yellow / partly zinked

suitable for lifting	gastight	
material properties	smooth	
surface	smooth	
e. g.	glass panes, sealed units, window and curtain walling elements, plastic and ceramic plates, coated boards	
suction cup type	388	
diameter in action approx. mm	300	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	8	6
loading capacity on smooth and clean surface at 60 % vacuum		
at construction sites kg	400	300
intra-company kg	600	600
dead weight approx. kg		
frame size approx. mm	1000 x 1300	
structural depth approx. mm	290	
output	1.5 m³/h	
voltage accumulator charger	230 Volt 50/60 Hz 1Ph	
item-no.: 7211-DS2...	8-0910	6-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph	
item-no.: 7211-DS2...	8-0910-110	6-0910-110

Other frame sizes	on request
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Accessories on request

item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE
item-no.: 7003-GTW2	transport carriage



Accu-Device Kombi 7211-DS2

Developed for operation
on the construction site in
the EC according to
EN 13155



for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees

Description

- **increased safety via 2 independent vacuum circuits**
each vacuum circuit is designed with 2-fold safety
- **according to EN 13155 & prEN 13035-1 & prEN 13035-2**
- each vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **2 completely closed vacuum circuits**
prevent loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- **Power failure monitoring system**
- multiple row arrangement of suction cups
- distance of suction cups cannot be adjusted
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°
- modular device construction

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF directly at the device
- SUCTION/RELEASE via hand valve at the device
- optional via cable remote control
- optional via infrared remote control

Suspension: crane eye at the carrying frame

Max. loading capacity: 600 kg

Colour: yellow / partly zinked

	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees

suitable for lifting	gastight		
material properties	smooth		
surface	e. g.		
	glass panes, sealed units, window and curtain walling elements, plastic and ceramic plates, coated boards		
suction cup type	388		
diameter in action approx. mm	300		
suction cup quality	rubber black abrasion possible upto 100° heat resistance		
number of suction cups	12	8	6
loading capacity on smooth and clean surface at 60 % vacuum			
at construction sites kg	600	400	300
intra-company kg	600	600	600
dead weight approx. kg			
frame size approx. mm			
structural depth approx. mm			
output	1.5 m³/h		
voltage accumulator charger	230 Volt 50/60 Hz 1Ph		
item-no.: 7211-DS2...	12-0910	8-0910	6-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph		
item-no.: 7211-DS2...	12-0910-110	8-0910-110	6-0910-110

Other frame sizes	on request		
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Accessories on request

item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE
item-no.: 7003-GTW3	transport carriage
item-no.: 7003-WL	large warning lamp (flash bulb for collecting failures)



Accu-Device Kombi 7211-DS

Developed for operation
on the construction site in
the EC according to
EN 13155



for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees
the perfect equipment for warehouse and construction site
independent from local power circuit

Description

- **increased safety via 2 independent vacuum circuits**
each vacuum circuit is designed with 2-fold safety
- **according to EN 13155 & prEN 13035-1 & prEN 13035-2**
- each vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **2 completely closed vacuum circuits**
prevent loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- **Power failure monitoring system**
- multiple row arrangement of suction cups
- distance of suction cups cannot be adjusted
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°
- modular device construction

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF directly at the device
- SUCTION/RELEASE via cable remote control
optional
via infrared remote control
crane eye at the carrying frame

Suspension:

Max. loading capacity:

Colour:

600 kg

yellow / partly zinked

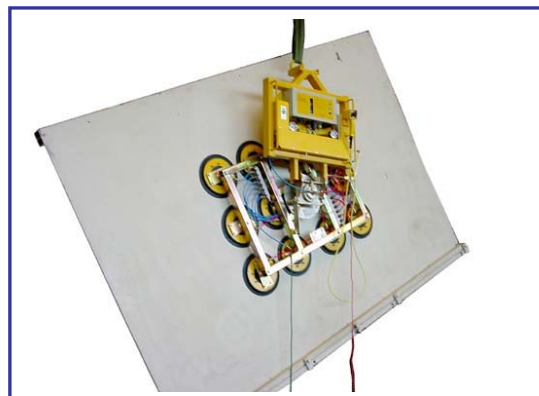
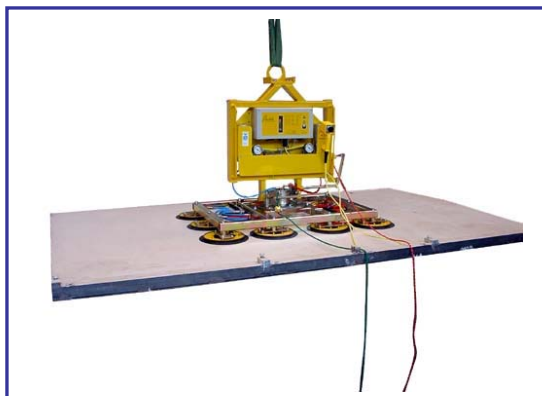
	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees

suitable for lifting	gastight	
material properties	smooth	
surface	smooth	
e. g.	glass panes, sealed units, window and curtain walling elements, plastic and ceramic plates, coated boards	
suction cup type	388	
diameter in action approx. mm	300	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	12	8
loading capacity on smooth and clean surface at 60 % vacuum		
at construction sites kg	600	400
intra-company kg	600	600
dead weight approx. kg	105	
frame size approx. mm		
structural depth approx. mm		
output	1.5 m³/h	
voltage accumulator charger	230 Volt 50/60 Hz 1Ph	
item-no.: 7211-DS...	12-0910	8-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph	
item-no.: 7211-DS...	12-0910-110	8-0910-110

Other frame sizes	on request
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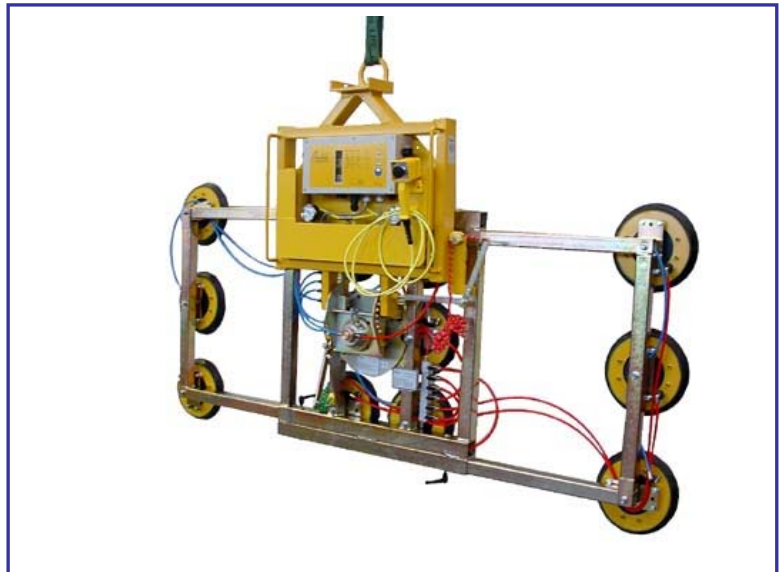
Accessories on request

item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE
item-no.: 7003-GTW3	transport carriage
item-no.: 7003-WL	large warning lamp (flash bulb for collecting failures)



Accu-Device Kombi 7211-DS

Developed for operation
on the construction site in
the EC according to
EN 13155



for planar stabilized, vertical lifting and transporting
manual turning through 2 x 90 degrees
manual tilting through 90 degrees
the perfect equipment for warehouse and construction site
independent from local power circuit

Description

- **increased safety via 2 independent vacuum circuits**
each vacuum circuit is designed with 2-fold safety
- **according to EN 13155 & prEN 13035-1 & prEN 13035-2**
- each vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- **2 completely closed vacuum circuits**
prevent loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- **Power failure monitoring system**
- multiple row arrangement of suction cups
- extensible suction frame
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF directly at the device
- SUCTION/RELEASE via cable remote control
optional
via infrared remote control

Suspension: crane eye at the carrying frame

**Maximum
loading capacity:**
Colour:

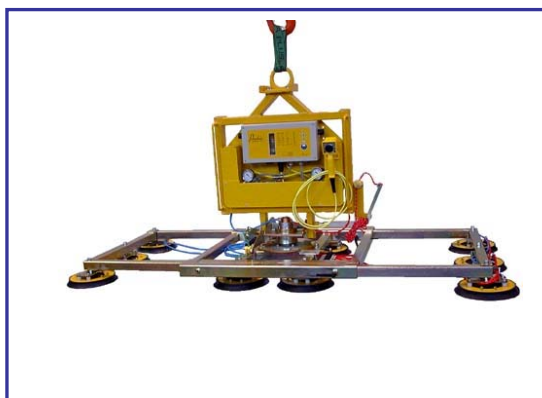
600 kg
yellow

	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees

suitable for lifting	gastight	
material properties	smooth	
surface	e. g.	
	glass panes, sealed units, window and curtain walling elements, plastic and ceramic plates, coated boards	
suction cup type	388	
diameter in action approx. mm	300	
suction cup quality	rubber black abrasion possible upto 100° heat resistance	
number of suction cups	12	8
loading capacity on smooth and clean surface at 60 % vacuum		
at construction sites kg	600	400
intra-company kg	600	600
dead weight approx. kg		
frame size min. approx. mm		
max. approx. mm		
structural depth approx. mm		
output	1.5 m³/h	
voltage accumulator charger	230 Volt 50/60 Hz 1Ph	
item-no.: 7011-DS_A...	12-0910	8-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph	
item-no.: 7211-DS_A...	12-0910-110	8-0910-110
Other frame sizes	on request	

Accessories on request

item-no.: 388-SCHUTZ	protection cap for suction cup 388
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE
item-no.: 7003-GTW3	transport carriage
item-no.: 7003-WL	large warning lamp (flash bulb for collecting failures)



Accu-Device Kombi 7211-DS3

Developed for operation
on the construction site
within the EC
according to EN 13155



for planar stabilized, vertical lifting and transporting
manual turning through + / - 360 degrees
manual or hydraulic tilting through 90 degrees

Description

- increased safety via 2 independent vacuum circuits
each vacuum circuit is designed with 2-fold safety
- fulfils standards EN 13155 & prEN 13035-1 & prEN 13035-2
- each vacuum circuit has a vacuum tank with nonreturn valve, vacuum switch and control vacuum meter
- 2 completely closed vacuum circuits
prevent loss of vacuum at power failure
- warning lamp and acoustic signal indicate insufficient vacuum
- power failure monitoring system
- multiple row arrangement of suction cups
- distance of suction cups can be adjusted
- extendable at maximum by 6 extensions
- maximum structural depth 230 mm
- ball beared turning device and lock
locking at -270° -180° -90° 0° +90° +180° +270°
- tilt device (0° to 90°) with lock every 5°
or infinitely through hydraulic cylinder
tilt device at any time changeable within a few minutes

Vacuum generation

- built-in low maintenance rechargeable battery vacuum pump (dry running system)
- for rechargeable battery and line operation without change-over
- built-in accumulator charger for charging over night
- no change of rechargeable battery necessary
- no cable - no hose

Control means

- ON/OFF directly at the device
- SUCTION/RELEASE via hand valve at the device
optional
via cable remote control

or
via infrared remote control
crane eye at the carrying frame
800 kg / 1000 kg
yellow / partly zinked

Suspension:

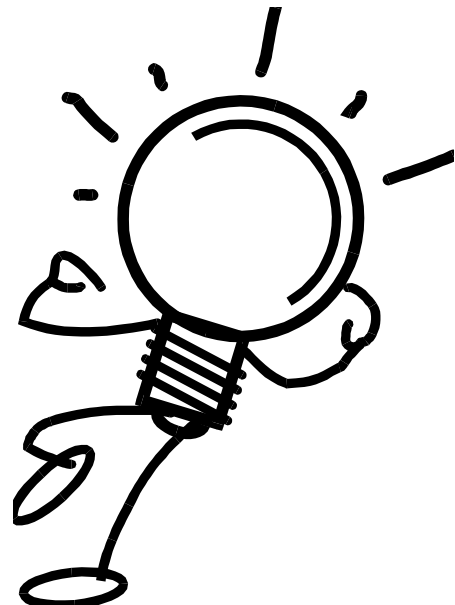
Max. loading capacity:

Colour:

	vertical
	horizontal
	turning through +/- 360 degrees
	tilting through 90 degrees

suitable for lifting	gastight					
material properties	smooth					
surface	smooth					
e. g.	glass panes, sealed units, window and curtain walling elements, plastic and ceramic plates, coated boards					
suction cup type	388					
diameter in action approx. mm	300					
suction cup quality	black rubber - abrasion possible - up to 100° heat resistance					
number of suction cups	16	14	12	10	8	6
number of extensions	6	6	4	2	0	0
loading capacity on smooth and clean surface at 60 % vacuum						
at construction sites kg	800	700	600	500	400	300
intra-company kg	1000	1000	1000	1000	800	600
dead weight approx. kg	125					
frame size approx. mm	2180 x 1840	2180 x 1220	2180 x 880	1320 x 1020	1320 x 610	1320 x 610
structural depth approx. mm	230					
output	1.5 m³/h					
voltage accumulator charger	230 Volt 50/60 Hz 1Ph					
item-no.: 7211-DS2man... with manual tilt device	16-0910	14-0910	12-0910	10-0910	08-0910	06-0910
voltage accumulator charger	110 Volt 50/60 Hz 1Ph					
item-no.: 7211-DS2man... with manual tilt device	16-0910-110	14-0910-110	12-0910-110	10-0910-110	08-0910-110	06-0910-110
voltage accumulator charger	230 Volt 50/60 Hz 1Ph					
Item-no.: 7211-DS2hyd... with hydraulic tilt cylinder	16-0910	14-0910	12-0910	10-0910	08-0910	06-0910
Voltage accumulator charger	110 Volt 50/60 Hz 1Ph					
item-no.: 7211-DS2hyd... with hydraulic tilt cylinder	16-0910-110	14-0910-110	12-0910-110	10-0910-110	08-0910-110	06-0910-110
Accessories on request						
item-no.: 388-SCHUTZ	protection cap for suction cup 388					
item-no.: 7003-SVhyd	hydraulic tilt device					
item-no.: 7003-SVman	manual tilt device					
item-no.: 7003-BK/DS	cable remote control → SUCTION/RELEASE					
item-no.: 7003-BF/DS	infrared remote control → SUCTION/RELEASE					
item-no.: 7003-GTW4	transport carriage					
item-no.: 7003-WL	large warning lamp (flash bulb for collecting failures)					



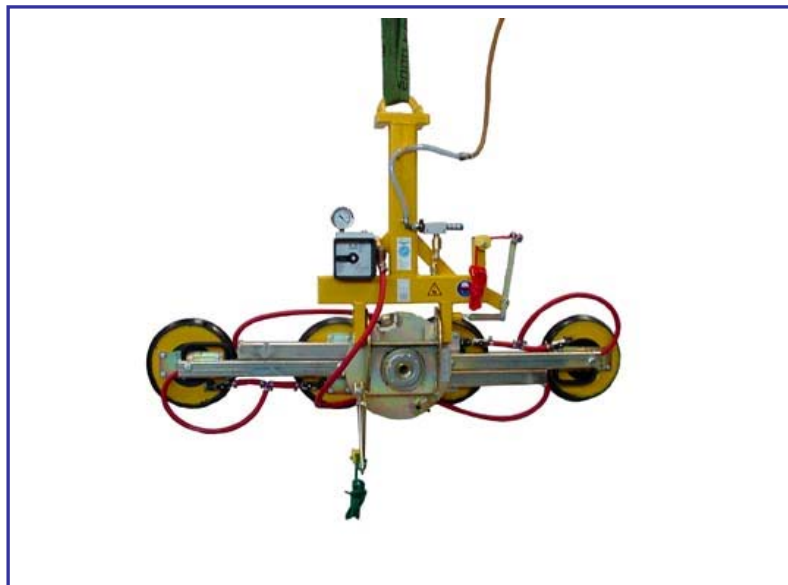


7005-xx

Carrying Frames with compressed air-operated
Vacuum Pump / Venturi jet(s)

Venturi Device 7005-ADS

**1-Circuit Vacuum Lifting
Device
according to
EN 13155.**



for lifting and transporting of narrow, long strips
manual turning through 2 x 90 degrees
manual tilting through 90 degrees

Description

- **1-circuit vacuum system**
- **Completely closed vacuum circuit**
prevents loss of vacuum at compressed air failure
- vacuum tank with nonreturn valve
- **Power failure monitoring system**
- control vacuum meter on the device
- single row arrangement of suction cups
- suction cups fixed directly on the carrying bar
- adjustable distance between the suction cups
via movable carrying bars
- all suction cups lockable individually
- turning device (-90°/0°/+90°)
with ball bearing turning bolt and locking device
- tilt device (0° to 90°) with locking device every 15°

Vacuum generation

- via built-in suction jet (Venturi)
for operation at least 6 bars compressed air are necessary

Control means

- Compressed air ON/OFF directly at the device
- SUCTION/RELEASE via hand valve at the device

Suspension: crane eye at the carrying frame

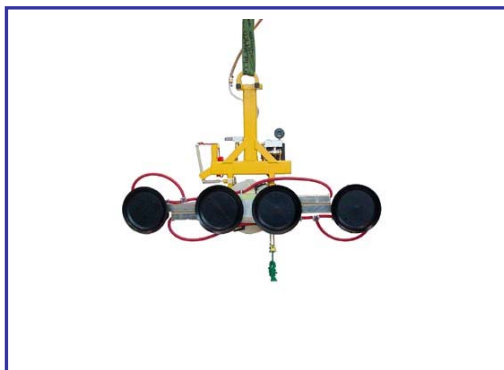
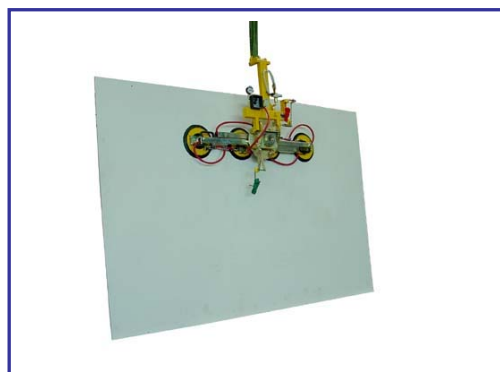
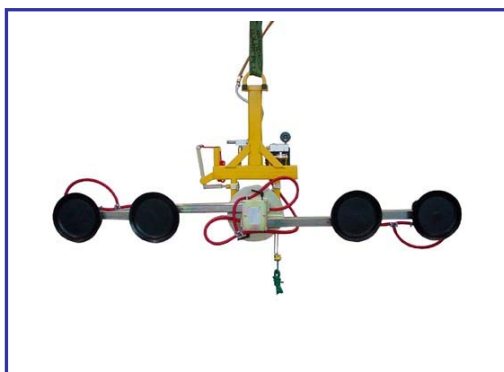
Max. loading capacity: 400 kg (2.5 m) / 340 kg (3.3 m)

Colour: yellow

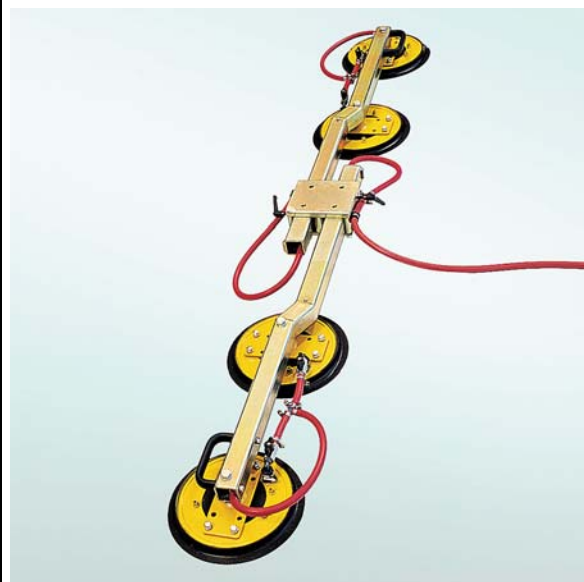
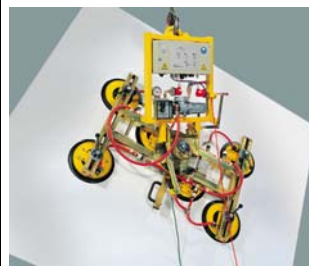
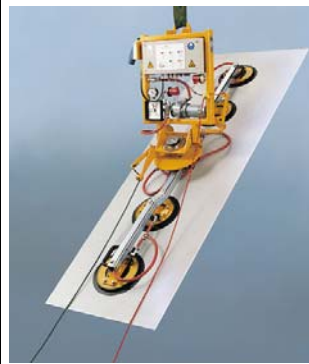
	vertical
	horizontal
	turning through +/- 90 degrees
	tilting through 90 degrees

suitable for lifting	
material properties	gastight
surface	smooth
e. g.	glass panes, sealed units, plastic and ceramic plates, coated boards
suction cup type	388
diameter in action approx. mm	300
suction cup quality	rubber black abrasion possible upto 100° heat resistance
number of suction cups	4
loading capacity	
at carrying bar length 1500 mm on smooth and clean surface at 60 % vacuum kg	400
at carrying bar length 2300 mm on smooth and clean surface at 60 % vacuum kg	340
dead weight approx. kg	
air pressure connection quick release coupling	9 mm
item-no.: 7005-ADS...	4-0910
Accessories on request	
item-no.: 388-SCHUTZ	protection cap for suction cup 388

Also available as 2-circuit vacuum lifting device (Type 7205-ADS)
in accordance to EN 13155 / prEN 13035.



Accessories for DS-family Zubehör zur DS-Familie



7003-ADS

Reversion Kit Exchange Carrying Frame

- **4 suction cups 388**
- extractable carrying bar length from approx. 1,5 m to approx. 2,3 m
- **maximum loading capacity 400 kg (pushed together) and 340 kg (extracted)**
- colour yellow

7003-ADS

Umbauset-Austausch-Tragrahmen

- **4 Sauger 388**
- ausziehbare Tragrohrlänge von ca. 1,5 m bis ca. 2,3 m
- **maximale Tragfähigkeit 400 kg (zusammengeschoben) bzw. 340 kg (auseinandergezogen)**
- Farbe gelb

Accessories for DS-family Zubehör zur DS-Familie



7003-CDS

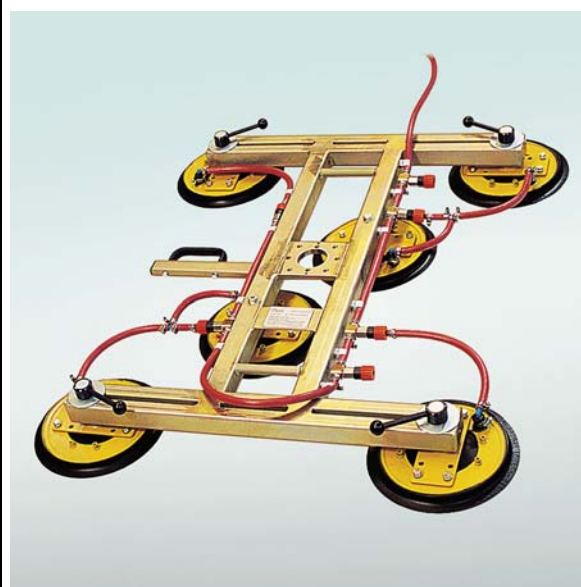
Reversion Kit Exchange Carrying Frame

- 4 adjustable carrying arms for different shapes
- **5 suction cups 388**
- **maximum carrying capacity 500 kg**
- colour yellow

7003-CDS

Umbauset-Austausch-Tragrahmen

- 4 verstellbare Tragarme für unterschiedliche Formen
- **5 Sauger 388**
- **maximale Tragfähigkeit 500 kg**
- Farbe gelb



7003-DS

Reversion Kit Exchange Carrying Frame

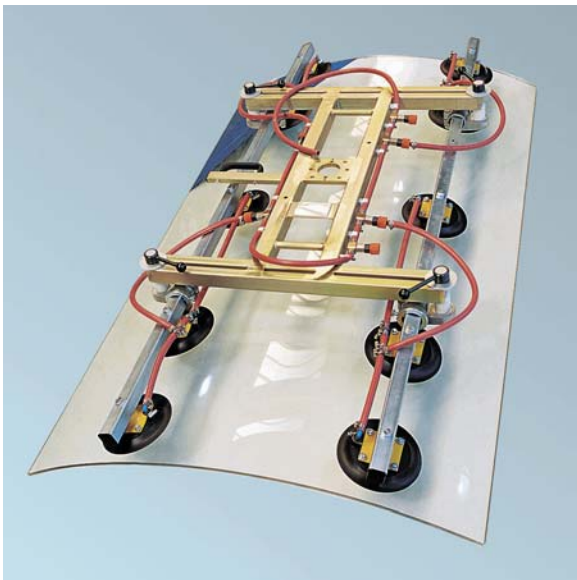
- **6 suction cups 388**
- all suction cups can be locked individually
- frame size approx. 1230 x 1000 / 660 mm
- **maximum carrying capacity 500 kg**
- colour yellow

7003-DS

Umbauset-Austausch-Tragrahmen

- **6 Sauger Nr. 388**
- alle Sauger einzeln absperbar
- Rahmengröße ca. 1230 x 1000 / 660 mm
- **maximale Tragfähigkeit 600 kg**
- Farbe gelb

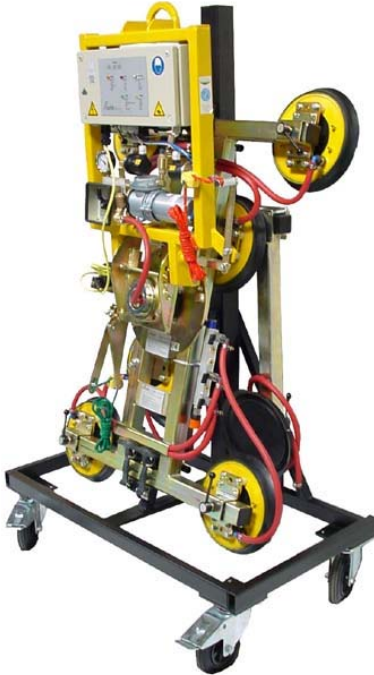
Accessories for DS-family Zubehör zur DS-Familie

	7003-DSG Reversion Kit Exchange Carrying Frame • convex or concave curved panes minimum radius 1000 mm • 14 suction cups 540 • carrying bar length approx. 2,00 m • maximum carrying capacity 400 kg • colour yellow 7003-DSG Umbauset-Austausch-Tragrahmen • konvex oder konkav gebogener Scheiben minimaler Radius 1000 mm • 14 Sauger 540 • Tragrohlänge ca. 2,00 m • maximale Tragfähigkeit 400 kg • Farbe gelb
	7003-BF/DS infrared remote control for suction/release 7003-BF/DS Infrarot-Fernbedienung für Saugen/Lösen

Accessories for DS-family Zubehör zur DS-Familie

	7003-BK/DS cable remote control for suction/release 7003-BK/DS Kabelfernbedienung für Saugen/Lösen
	388-Schutz protecting cap for suction cup 388 388-Schutz Schutzhaube für Sauger 388
	540-Schutz protecting cap for suction cup 540 540-Schutz Schutzhaube für Sauger 540

Accessories for DS-family Zubehör zur DS-Familie

	7003-VLDS extension arms each with suction cup 388 each approx. 750 mm long for more stabilization of large loaded goods (only for 7011-DS) 7003-VLDS Verlängerung Auslegearme zur Erhöhung der Flächenstabilität jeweils mit Sauger 388 Armlänge je Seite ca. 750 mm (nur für 7011-DS)
	7003-GTW2 transport carriage (only for 7011-DS) 7003-GTW2 Transportwagen (nur für 7011-DS)