



Zero-point clamping



Changeover in seconds!



SAFE
patented collet lock

7.52



Zero-point clamping since 1995



Vischer & Bolli AG – Company headquarters in Dübendorf Switzerland



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Vischer & Bolli – the tool engineering and workholding professionals:

Your wish is our command, our business model is as simple as that.

Experience and pioneering spirit.

The best possible solutions to suit our customer needs.

Suppliers of precision tools since 1957. Many of these tools have been developed by our in-house engineers, including the DockLock zero-point workholding system, a marked leader from which our customers all over the world have benefited since 1995.

First class, customized solutions.

Rely on us to provide them. Swiss quality is guaranteed by our experts in the fields of machining and workholding systems. We look forward to giving you the benefit of our know-how.



Vischer & Bolli Workholding
distributed in the UK and Ireland by:



MicroLoc

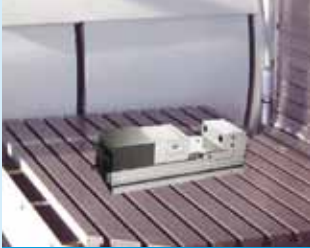

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web: www.micronworkholding.co.uk



The smart move from set-up time to productivity!



- with existing machine outfit
- increase in productivity
 - increase in return

Assuming: 200 working days machining hour € 80.-	Set-up change conventional	Set-up change with vb DOCK LOCK	
	20 Min. machine down time	2 Min. machine down time	
			
			additional earning with vb DOCK LOCK
Sample 1: 1 machine 1 shift 2 set-up change / shift 4 set-up change / shift	per year 133 h 266 h	per year 13,3 h 26,6 h	120 h € 9576.- 239 h € 19152.-
Sample 2: 5 machine 2 shift 2 set-up change / shift 4 set-up change / shift	per year 1330 h 2660 h	per year 133 h 266 h	1197 h € 95760.- 2394 h € 191520.-

zero-point clamping

7.52



SAFE

page 6 – 8

The zero-point clamping system with patented collet lock

SAFE 20

page 9 – 20

Pull-in force per unit: 12'500 N
Retention force per unit: 40'000 N

SAFE 30

page 21 – 28

Pull-in force per unit: 20'000 N
Retention force per unit: 60'000 N

SAFE 50

page 29 – 34

Pull-in force per unit: 30'000 N
Retention force per unit: 90'000 N

Auto SAFE 30

page 35 – 40

Pull-in force per unit: 20'000 N
Retention force per unit: 60'000 N

Combination base plates
Standard base plates
Standard- and indexable pallets

page 41 – 52

Pressure units
Accessories

page 53 – 57

The only Zero-point clamping system with a patented collet lock.

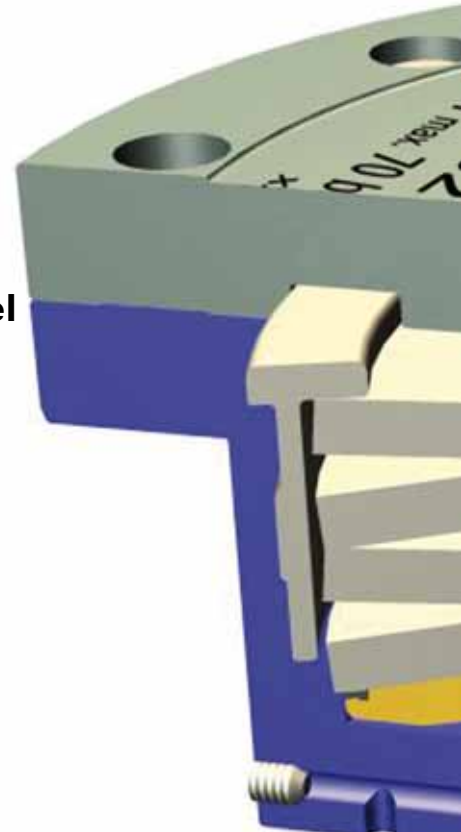


SAFE
patented collet lock

Developed for you
Made of cold-work corrosion resistant steel
Approved design, umpteen thousand sold

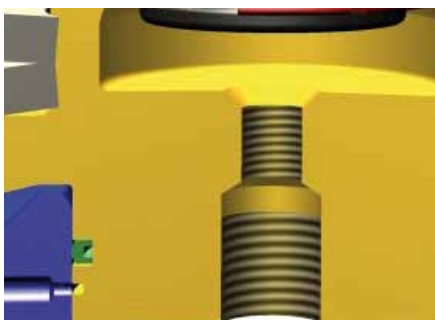
The modular **vb DOCKLOCK** build up not just guarantees enormous time and cost savings but assures great flexibility in production. The unique interface enables setups where they actually belong, outside the machine tools, without blocking any machining time. Whether it is measuring, turning, milling, grinding or edming, with **vb DOCKLOCK** your production is much more flexible, while costs and delivery time are reduced. Our long time experience on Zero point workholding permits us to quote cost efficient premium solutions specifically designed to your needs.

Setup changes in seconds,
with vb DockLock successfully realized since 1995.

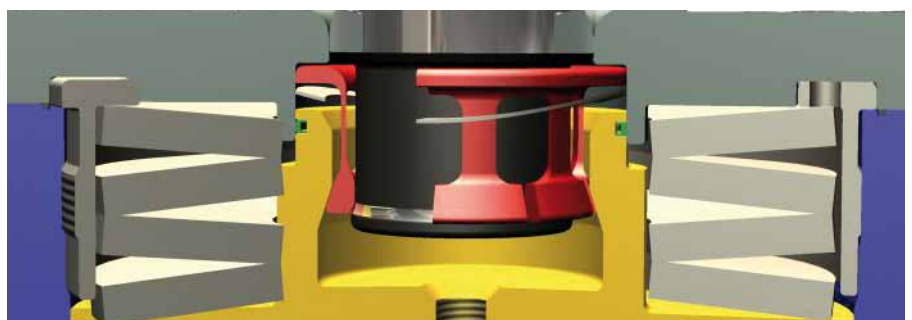


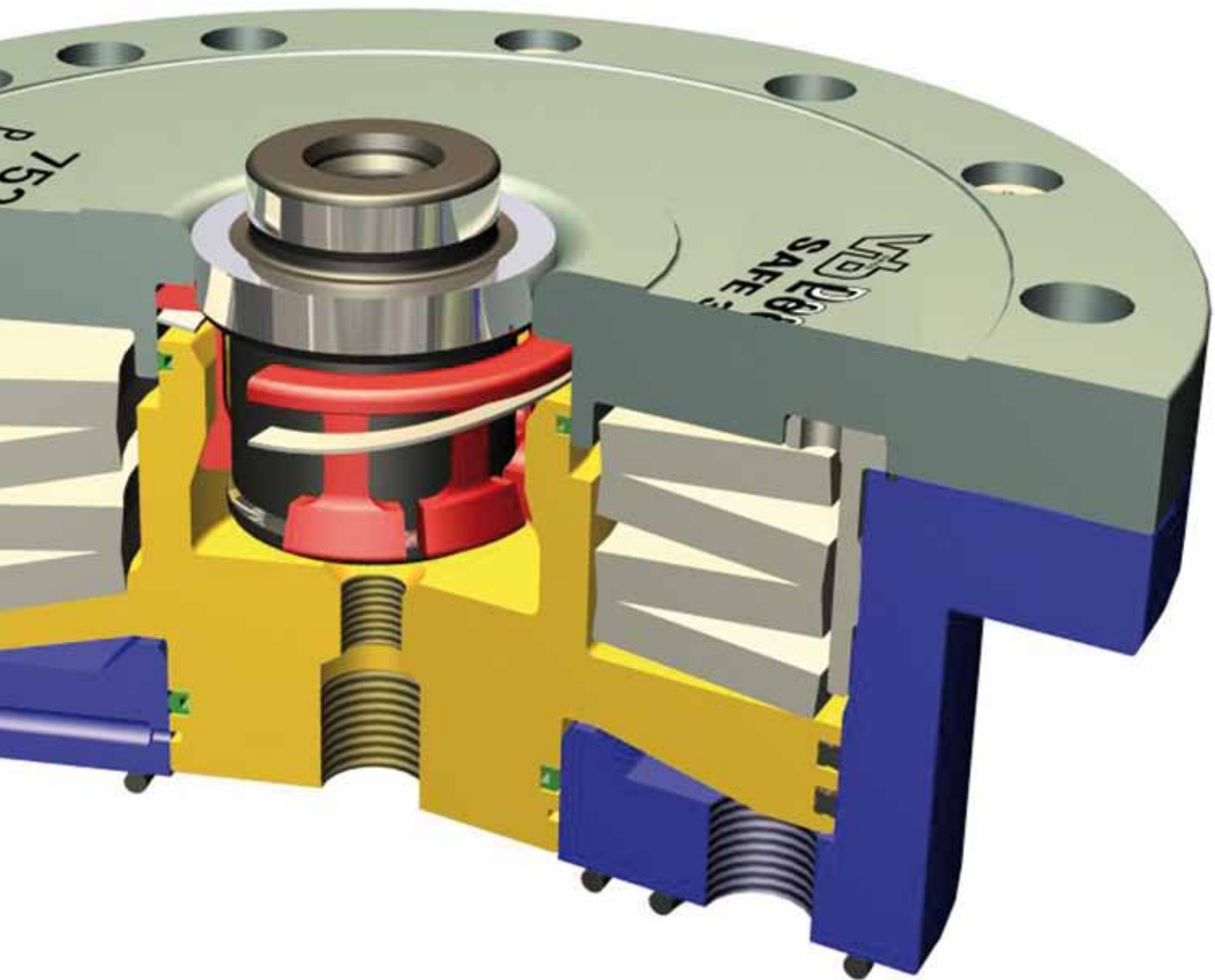
		pull-in force per unit	retention force per unit	piston position control
vb DOCKLOCK	SAFE 20	12'500 N	40'000 N	✓
vb DOCKLOCK	SAFE 30	20'000 N	60'000 N	✓
vb DOCKLOCK	SAFE 50	30'000 N	90'000 N	✓

Air-blast and piston position monitoring: Process reliability

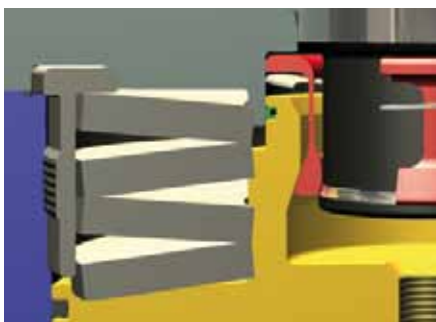


Superior form fit clamping with collet lock

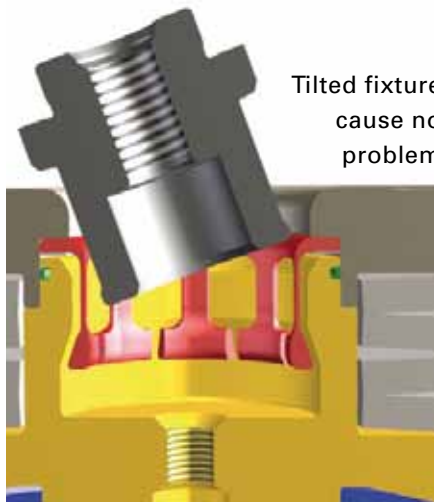




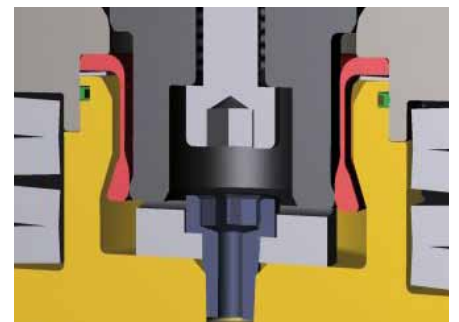
Highest pull-in and retention forces.
Mechanically clamped by disc
springs released by hydraulic



Tilted fixture
cause no
problem



Push up function produces
easy handling



The smart move from set-up time to productivity:

equip your machines with **vb** *rock*[®] (machine tables or pallets)!



mount fixtures with plugs



engage and start machining



zero-point clamping

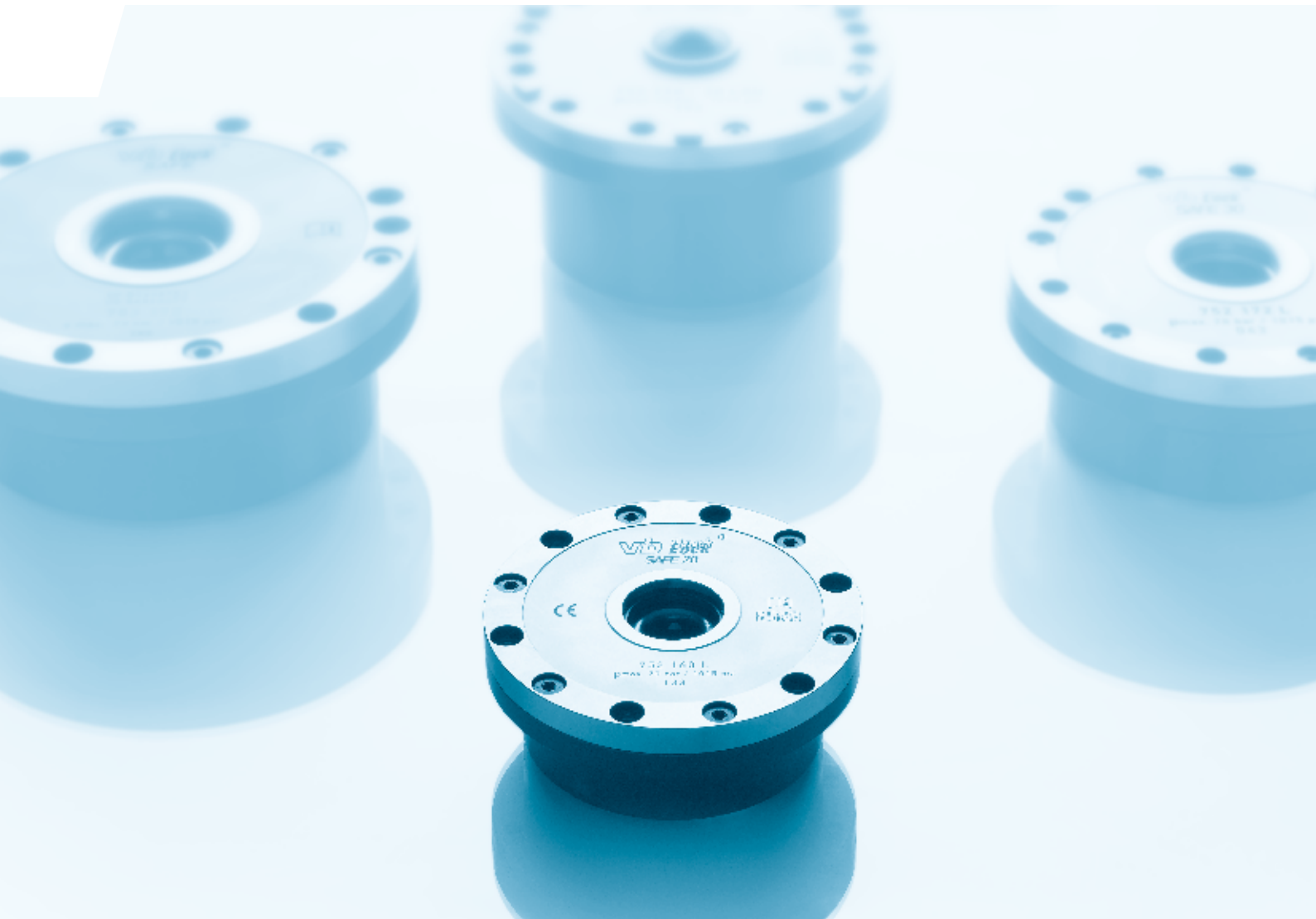
7.52



SAFE 20

Pull-in force per unit: 12'500 N
Retention force per unit: 40'000 N

Flanged cylinders	page 10 – 11
Built-in cylinders	page 12 – 13
Built-up cylinders	page 14
Pneumatically activated units	page 15
Plugs	page 16 – 19
Accessories	page 20



vb POCK Lock **SAFE 20**

7.52 SAFE 20

Flanged cylinders

for direct integration into machine tables, pallets and fixtures

pull-in force: 12'500 N

retention force: 40'000 N

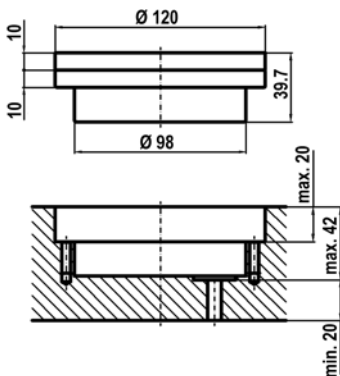
752160	Standard	752160 LI	with air-blast cleaning and indexing grooves
752160 L	with air-blast cleaning	752160 LIU	with air-blast cleaning, indexing grooves and rear side media connection
752160 LU	with air-blast cleaning and rear side media connection		
752160 I	with indexing grooves		



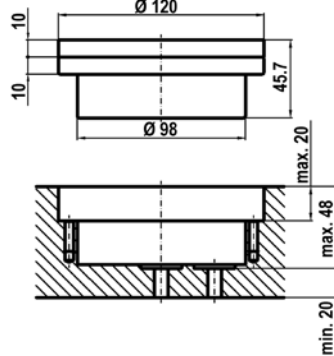
Indexing grooves

Pallets and indexing set screws see page 52

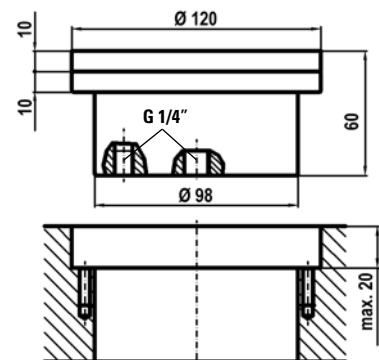
**752160
752160 I**



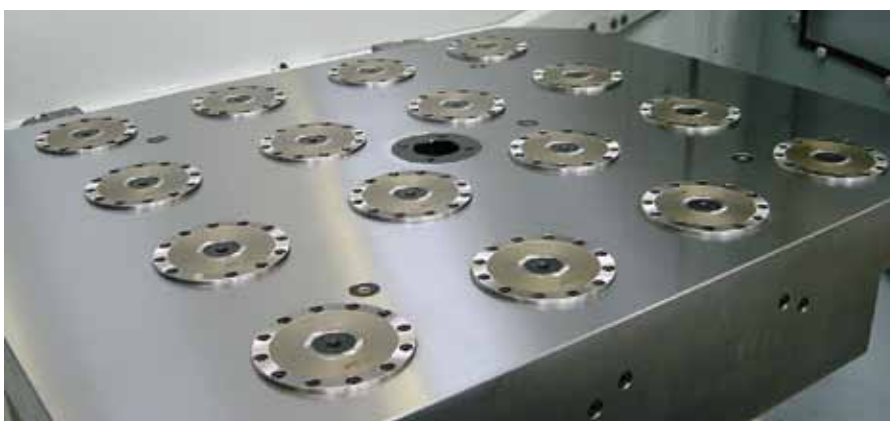
**752160 L
752160 LI**



**752160 LU
752160 LIU**



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015 psi



vb POCK Lock **SAFE 20**

7.52 SAFE 20

Flanged cylinders

for direct integration into machine tables, pallets and fixtures

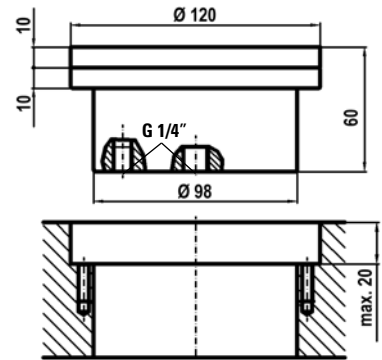
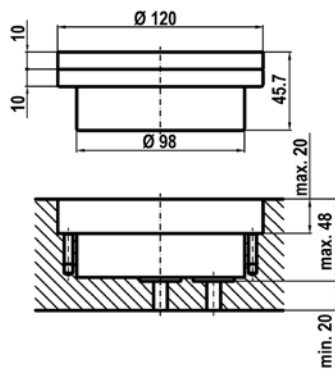
pull-in force: 12'500 N

retention force: 40'000 N

- | | | | |
|-------------------|---|-------------------|--|
| 752160 LA | with air-blast cleaning through center and support isles | 752160 LAK | with air-blast cleaning through center, support isles and piston position monitoring |
| 752160 LAU | with air-blast cleaning through center and support isles and rear side connection for oil and air | | |

752160 LA / LAK

752160 LAU



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015 psi



vb POCK-LOCK **SAFE 20**

7.52 SAFE 20

Built-in cylinders
for base-plates, set-up stations,
measuring machines

pull-in force: 12'500 N

retention force: 40'000 N

752150
752150 L

Standard
with air-blast cleaning

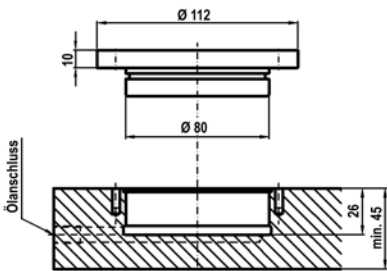
752150 I
752150 LI

with indexing grooves
with air-blast cleaning and
indexing grooves

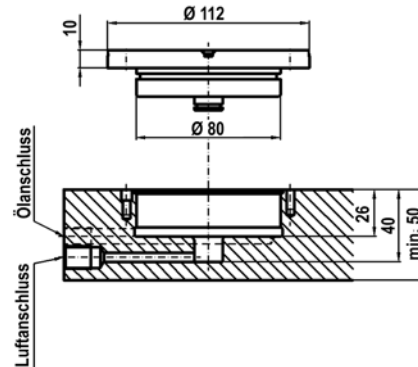


Indexing grooves
Pallets and indexing
set screws
see page 52

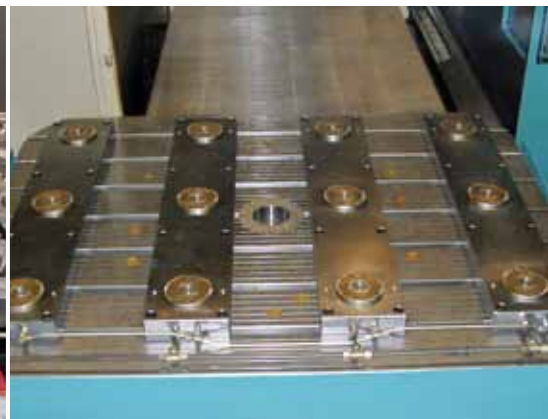
752150
752150 I



752150 L
752150 LI



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015 psi



vb POCK-LOCK SAFE 20

7.52 SAFE 20

Built-in cylinders
for base-plates, set-up stations,
measuring machines

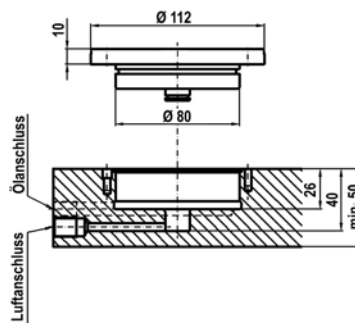
pull-in force: 12'500 N

retention force: 40'000 N

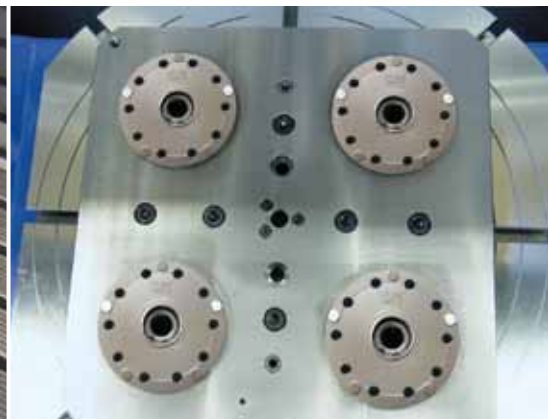
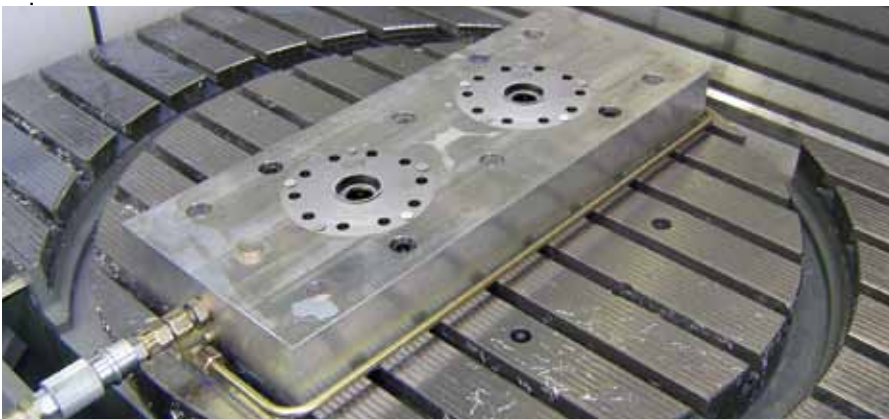
752150 LA with air-blast cleaning through center and support isles



752150 LA



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015



vb POCK Lock **SAFE 20**

7.52 SAFE 20

Built-up cylinders
for flexible configuration

pull-in force: 12'500 N

retention force: 40'000 N

752110
752110 L

Standard
with air-blast cleaning

752110 I
752110 LI

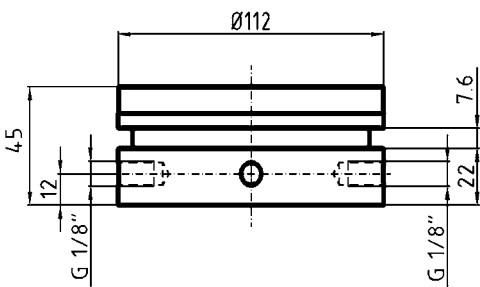
with indexing grooves
with air-blast cleaning and
indexing grooves



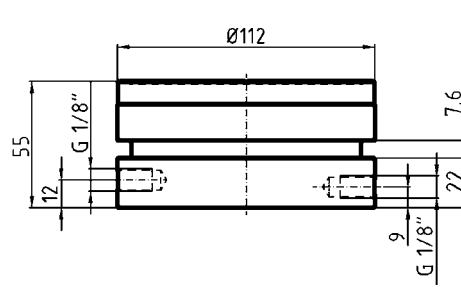
Indexing grooves

Pallets and indexing
set screws
see page 52

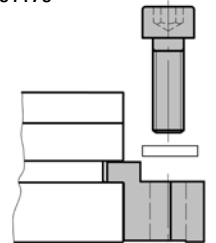
752110
752110 I



752110 L
752110 LI



Socket head screw M12x35
751175



Bracket
751172

Max. operating pressure 70 bar / 1015 psi



vb POCK Lock **SAFE 20**
Pneumatically activated units

7.52 SAFE 20

Flanged cylinders

752160 P	Standard
752160 LP	with air-blast cleaning
752160 LUP	with air-blast cleaning and rear side media connection
752160 IP	with indexing grooves
752160 LIP	with air-blast cleaning and indexing grooves
752160 LIUP	with air-blast cleaning, indexing grooves and rear side media connection
752160 LAP	with air-blast cleaning through center and support isles
752160 LAUP	with air-blast cleaning, through center and support isles and rear side media connection
752160 LAKP	with air-blast cleaning through center and support isles and piston position monitoring



752160 ... P

Built-in cylinders

752150P	Standard
752150 LP	with air-blast cleaning
752150 IP	with indexing grooves
752150 LIP	with air-blast cleaning and indexing grooves
752150 LAP	with air-blast cleaning through center and support isles



752150 ... P

Built-up cylinders

752110P	Standard
752110 LP	with air-blast cleaning
752110 IP	with indexing grooves
752110 LIP	with air-blast cleaning and indexing grooves



752110 ...P

Air pressure minimum 5 bar / 70 psi

Safe 30 on request
Safe 50 on request

vb POCK Lock SAFE 20


7.52 SAFE 20

Plugs

recommended plug arrangement

1  **Centering plug**
- ground $\varnothing 32 \pm 0,01$ mm

The centering plug defines the zero-point. It centers with the diameter

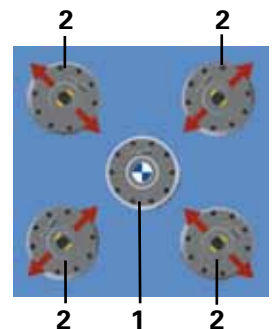
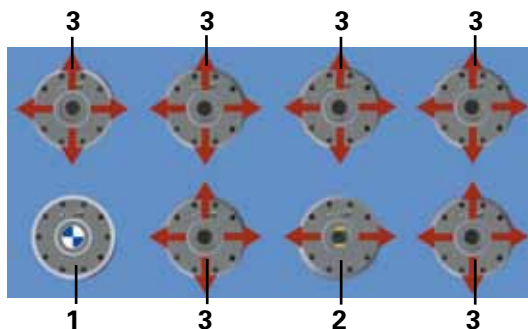
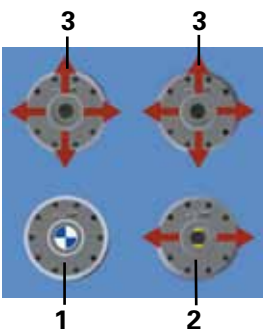
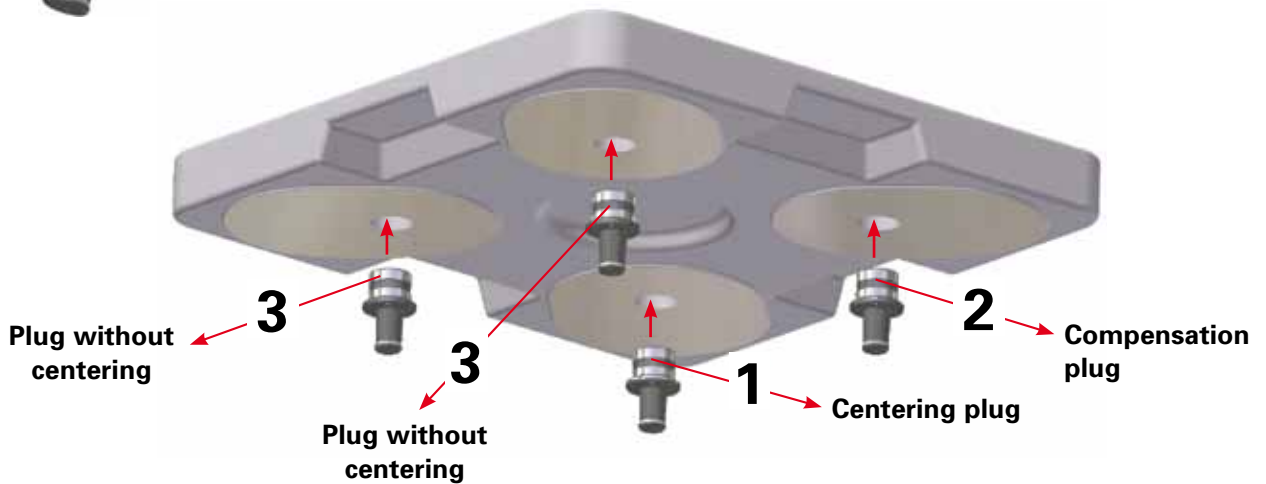
2  **Compensation plug**
- two ground raised cams
 $\varnothing 32 \pm 0,01$ mm

The compensation plug defines the X- or Y-axis. The cam line must be set 90° to the line connecting with the centering plug. Compensates for variations in temperature.



3  **Plug without centering**
- $\varnothing 30,0 \pm 0,1$ mm

Plugs without centering only serve for clamping

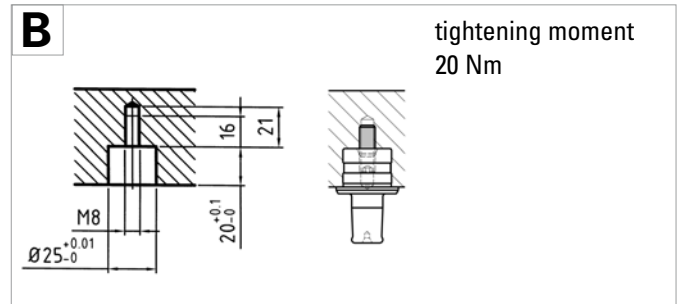
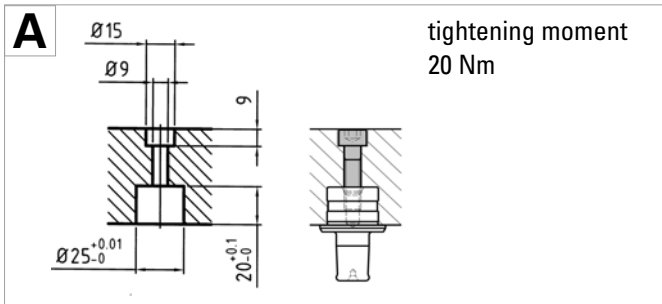


vb POCKLOCK **SAFE 20**

7.52 SAFE 20

Plugs
long

Plug fitting versions (preferably version **A**)



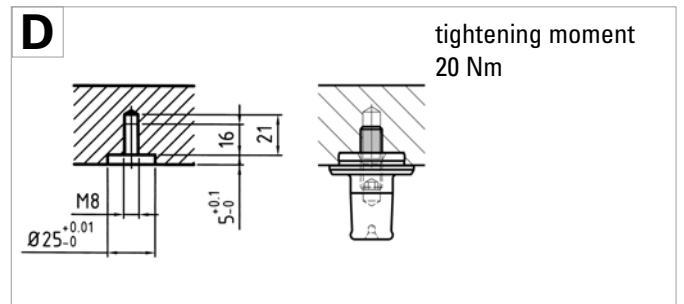
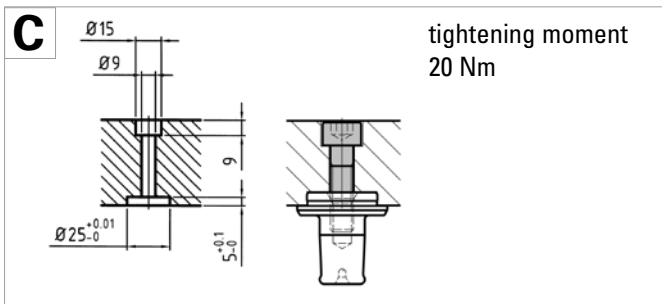
			without air-blast	with air-blast	fitting version A	fitting version B
752500 Centering plug			x		x	x
752504 Centering plug				x	x	x
752510 Plug without centering			x	x	x	x
752520 Compensation plug			x	x	x	x

vb POCK-LOCK **SAFE 20**

7.52 SAFE 20

Plugs
short

Plug fitting versions (preferably version C)



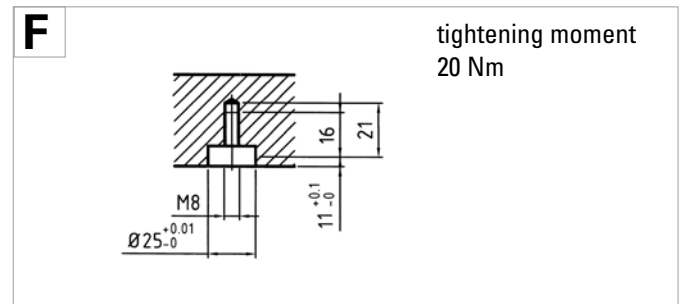
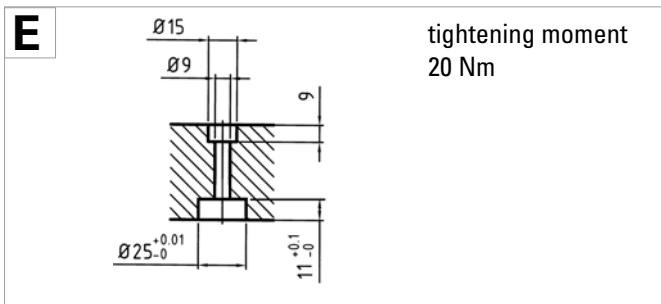
			without air-blast	with air-blast	fitting version C	fitting version D
752502			x		x	x
752505				x	x	x
752512			x	x	x	x
752522			x	x	x	x
752523			x	x		x

vb DOCK Lock SAFE 20

7.52 SAFE 20

Plugs
special applications

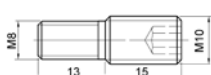
Plug fitting versions (preferably version E)



			without air-blast	with air-blast	fitting version A/B	fitting version C/D	fitting version E/F
752515 Centering plug medium length e.g. for vises			x	x			x
752516 Compensation plug medium length e.g. for vises			x	x			x
752501 Oversize Centering plug long Bore size Ø 26.0 _{0.01} mm				x	x		
752503 Oversize Centering plug short Bore size Ø 26.0 _{0.01} mm				x		x	

Special fitting of plugs

751552



Stud screw to clamp
DockLock plug into
M10 blind hole

751548



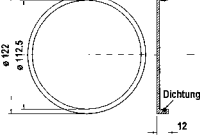
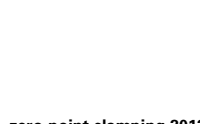
Stud screw to clamp
DockLock plug into
M12 blind hole

vb POCKLOCK **SAFE 20**

Accessories

7.52 SAFE 20

<p>751590 Setup plug for built-up cylinder</p>		
<p>751550 stud bolt M8 x 30 for blind hole mounting of plugs</p>		
<p>751580 Indexing set-screw M8 (12.9) hardened, for Mini basic pallet 751 601</p>		
<p>751551 Socket head screw M8 x 25 (12.9) for through hole plug mounting</p>		
<p>75199. Brass coverdisc for 752 ... Deckel</p>		
<p>751998 Ø 10,5 ± 0,05 mm thickness 1 mm</p>		
<p>751999 Ø 8,55 ± 0,10 mm thickness 1 mm</p>		
<p>Swarf protection of counterbores on vb <small>POCKLOCK</small> units Attention: most important for automated applications Fitting: fit flush by using a plastic faced hammer Removal: Strike the center with a small punch and pull out with a scriber or similar tool.</p>		
<p>775 ... T-Slot Nuts</p>		
	A B C D E F kg	
775 PT06 1412	22,0 16,0 13,8 8,0 M12 28 0,048	
775 PT06 1816	28,0 20,0 17,7 10,5 M16 30 0,085	
Other sizes see catalogue 7 page 85		

<p>751570 Mounting adapter for plugs</p>		
<p>751159 Aluminium cover</p>		
<p>752534 Cover plug</p>		
<p>751172 Bracket</p>		
<p>751175 Socket head screw M12 x 35 to bracket 751 172</p>		
<p>752 00090 Collet</p>		
<p>751 00094 circular spring</p>		
<p>751 00091 Circlip</p>		
<p>752165K Spacers used to compensate height variations on flanged cylinder cavities SAFE 20. Thickness 2 mm</p>		
<p>752004-1.2 Washer for inclined lifting</p>		

zero-point clamping

7.52



SAFE 30

Pull-in force per unit: 20'000 N
Retention force per unit: 60'000 N

Flanged cylinders

page 22 – 23

Built-up cylinders

page 24

Plugs

page 25 – 26

Accessories

page 27



vb POCK Lock **SAFE 30**

7.52 SAFE 30

Flanged cylinders
for direct integration into machine
tables, pallets and fixtures

pull-in force: 20'000 N

retention force: 60'000 N

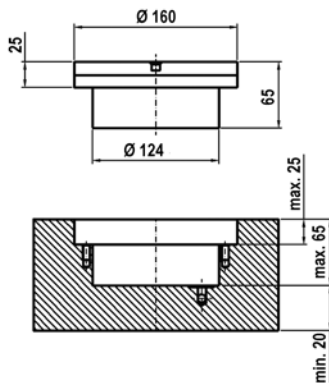
752172	Standard	752172 I	with indexing grooves
752172 U	with rearside media connection	752172 LI	with air-blast cleaning and indexing grooves
752172 L	with air-blast cleaning	752172 LIU	with air-blast cleaning, indexing grooves and rear side media connection
752172 LU	with air-blast cleaning and rear side media connection		



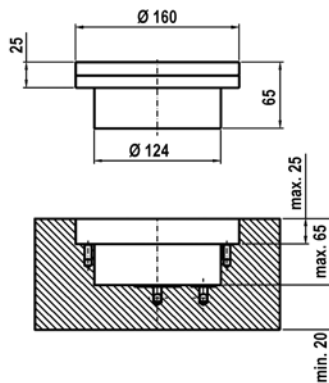
Indexing grooves

Pallets and indexing set screws see page 52

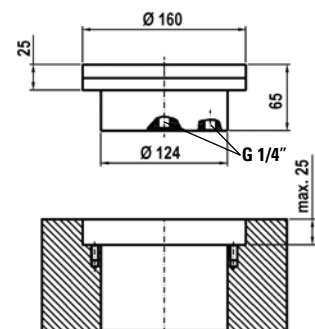
**752172
752172I**



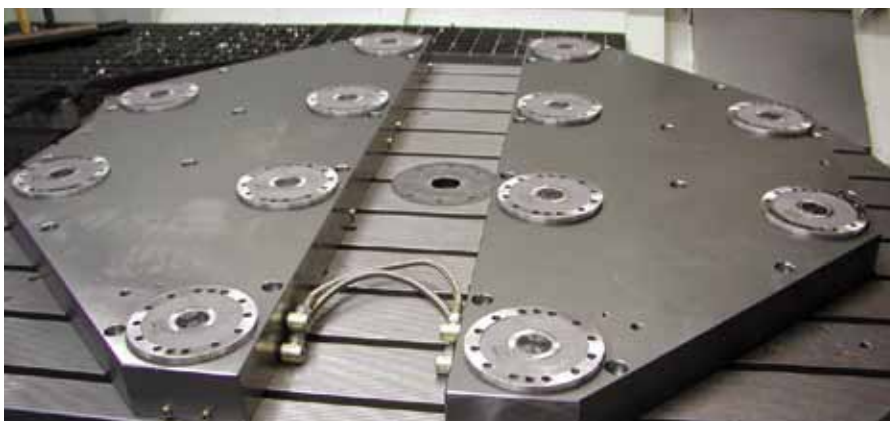
**752172 L
752172 LI**



**752172 LU
752172 LIU**



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015 psi



vb POCK-LOCK SAFE 30 Slim Line

7.52 SAFE 30

Flanged cylinders

for direct integration into machine tables, pallets and fixtures

pull-in force: 16'000 N

retention force: 50'000 N

752176

Standard

752176 I

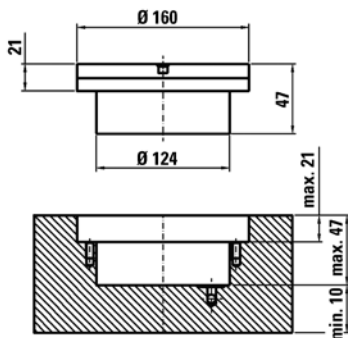
with indexing grooves



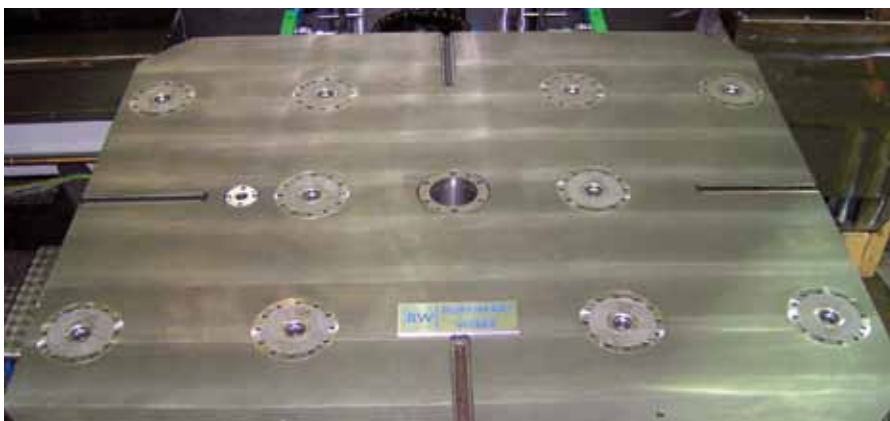
Indexing grooves

Pallets and indexing set screws see page 52

752176
752176 I



For in-house mounting please ask for instructions! Max. operating pressure 70 bar / 1015 psi



vb POCK-LOCK **SAFE 30**

7.52 SAFE 30

Built-up cylinders
for flexible configuration

pull-in force: 20'000 N

retention force: 60'000 N

752178
752178 L

Standard
with air-blast cleaning

752178 I
752178 LI

with indexing grooves
with air-blast cleaning and
indexing grooves

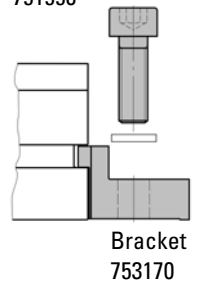
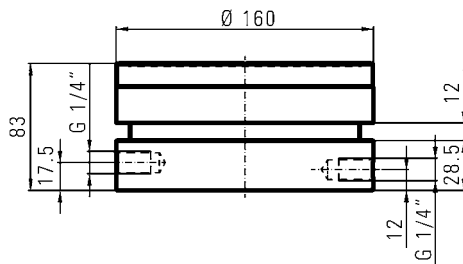
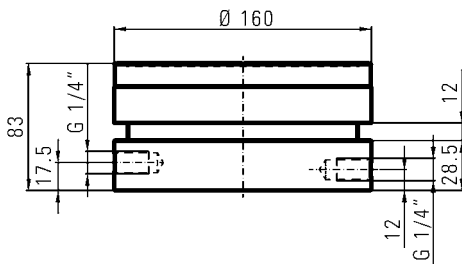


Indexing grooves
Pallets and indexing
set screws
see page 52

752178
752178 I

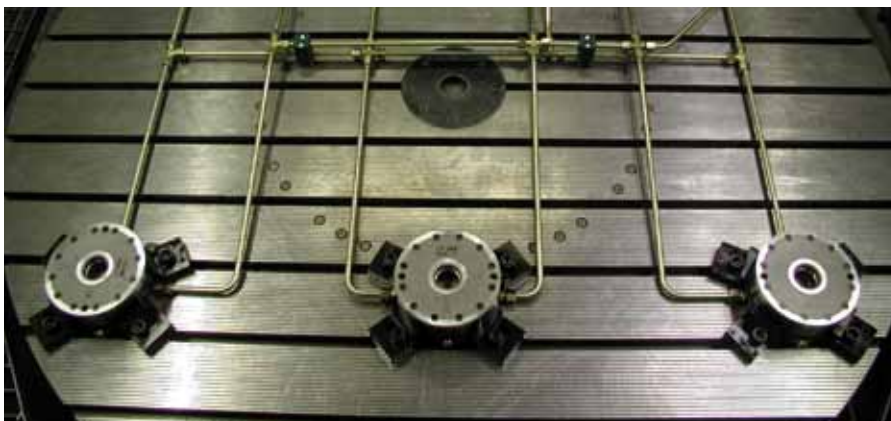
752178 L
752178 LI

Socket head screw M16x60
751558



Bracket
753170

Max. operating pressure 70 bar / 1015 psi



vb POCK Lock **SAFE 30**


7.52 SAFE 30

Plugs

recommended plug arrangement

1  **Centering plug**
- ground $\varnothing 36 \pm 0,01$ mm

The centering plug defines the zero-point.
It centers with the diameter

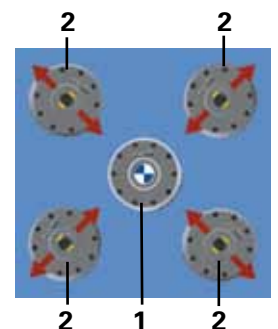
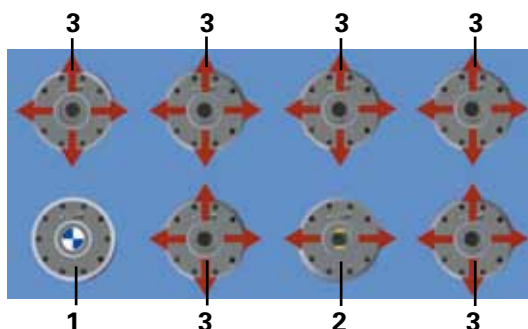
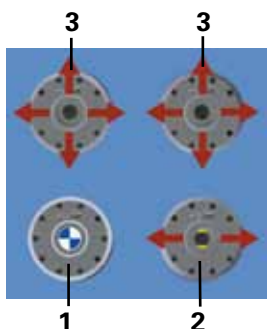
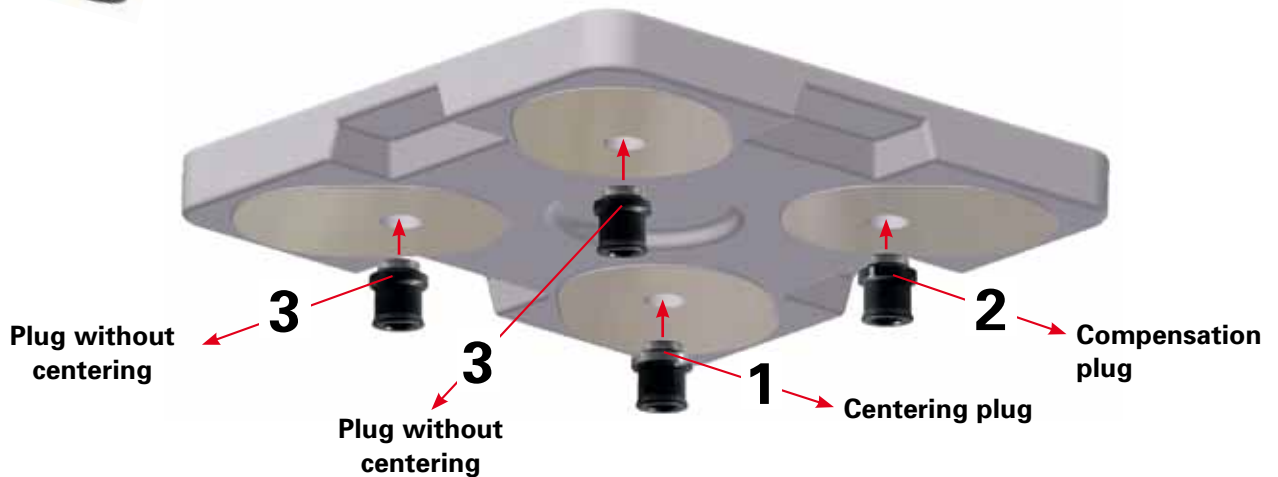
2  **Compensation plug**
- two ground raised cams
 $\varnothing 36 \pm 0,01$ mm

The compensation plug defines the X- or Y-axis.
The came line must be set 90° to the line connecting with
the centering plug. Compensates for variations in temperature.



3  **Plug without centering**
- $\varnothing 34,5 \pm 0,1$ mm

Plugs without centering only serve for clamping

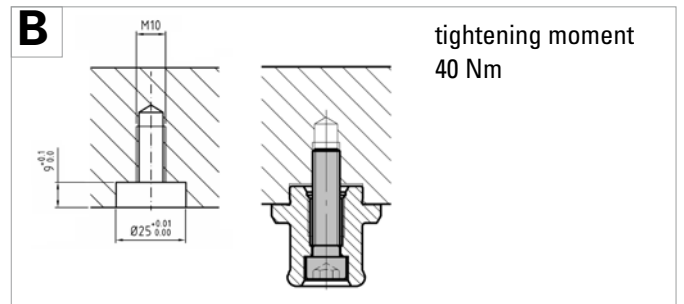
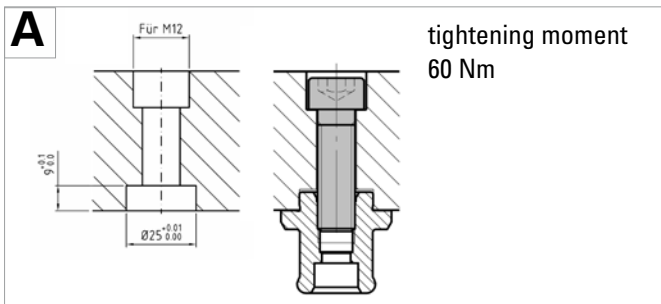


vb POCK-LOCK **SAFE 30**

7.52 SAFE 30

Plugs
standard

Plug fitting versions (preferably version A)






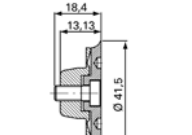

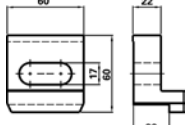



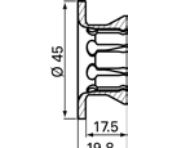

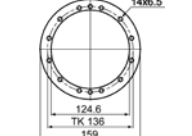

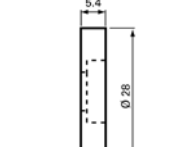
			without air-blast	with air-blast	fitting version A	fitting version B
752702 Centering plug			x	x	x	x
752712 Plug without centering			x	x	x	x
752722 Compensation plug			x	x	x	x

vb *POCKLOCK* **SAFE 30**

Zubehör

7.52 SAFE 30

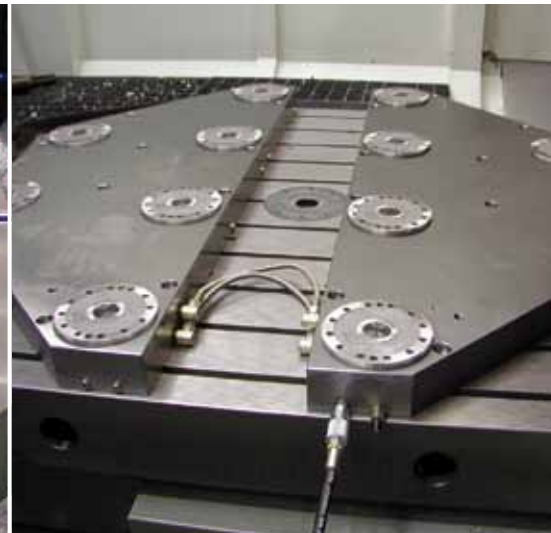
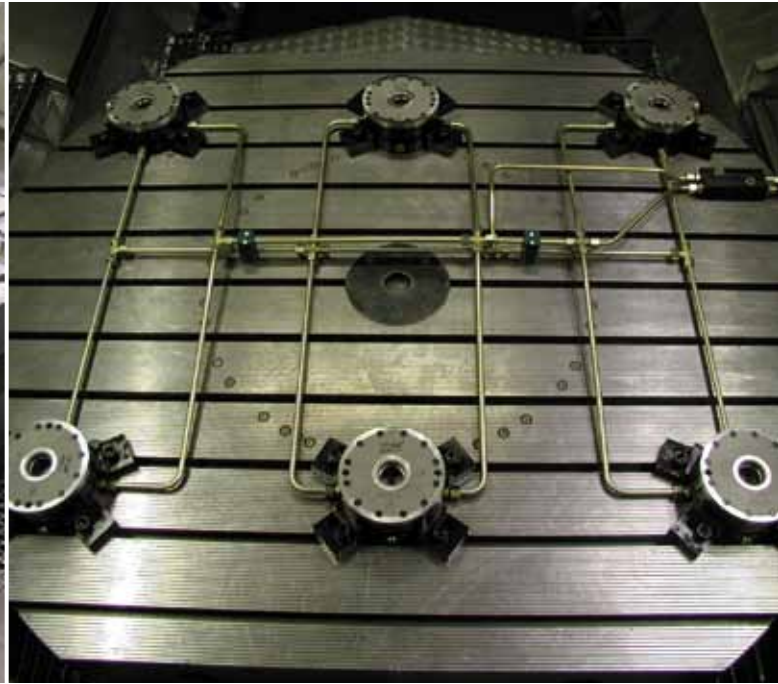
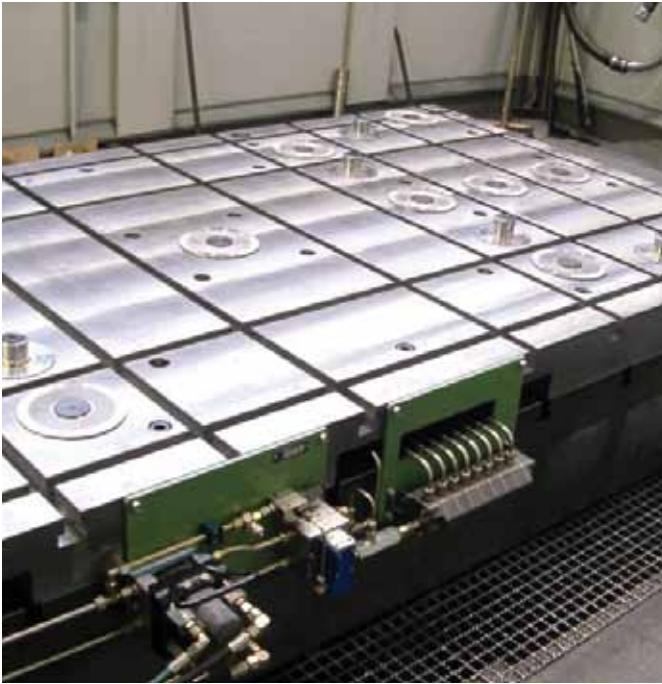
<p>752790 Setup plug for built-up cylinder</p>		
<p>752551 Socket head screw M10 x 40 (12.9) for mounting plugs from underneath</p>		
<p>753580 Indexing set-screw M10 (12.9) hardened, for Mini basic pallet</p>		
<p>753551 Socket head screw M12 x 50 (12.9) for through hole plug mounting</p>		
<p>751998 Brass coverdisc for 752 ...</p> <p>751998 $\varnothing 10,5 \pm 0,10$ mm thickness 1 mm</p>		
<p>Swarf protection of counterbores on <i>vb</i> <i>lock</i> units Attention: most important for automated applications Fitting: fit flush by using a plastic faced hammer Removal: Strike the center with a small punch and pull out with a scriber or similar tool.</p>		
<p>775 ... T-Slot Nuts</p>		
	<p>A B C D E F kg</p>	
<p>775 PT06 1412</p>	<p>22,0 16,0 13,8 8,0 M12 28 0,048</p>	
<p>775 PT06 1816</p>	<p>28,0 20,0 17,7 10,5 M16 30 0,085</p>	
<p>Other sizes see catalogue 7 page 85</p>		

<p>753555 Socket head screw M6 x 30 low head for flange mounting</p>		
<p>752734 Cover plug</p>		
<p>753170 Bracket</p>		
<p>753552 Socket head screw M16 x 54 to bracket 753 170</p>		
<p>752 00095 Collet</p> <p>752 00094 circular spring</p>		
<p>752168 Spacers used to compensate height variations on flanged cylinder cavities SAFE 20. Thickness 2 mm</p>		
<p>752006-1 Washer for inclined lifting</p>		

vb POCK
Lock® **SAFE 30**

Examples

7.52 SAFE 30



zero-point clamping

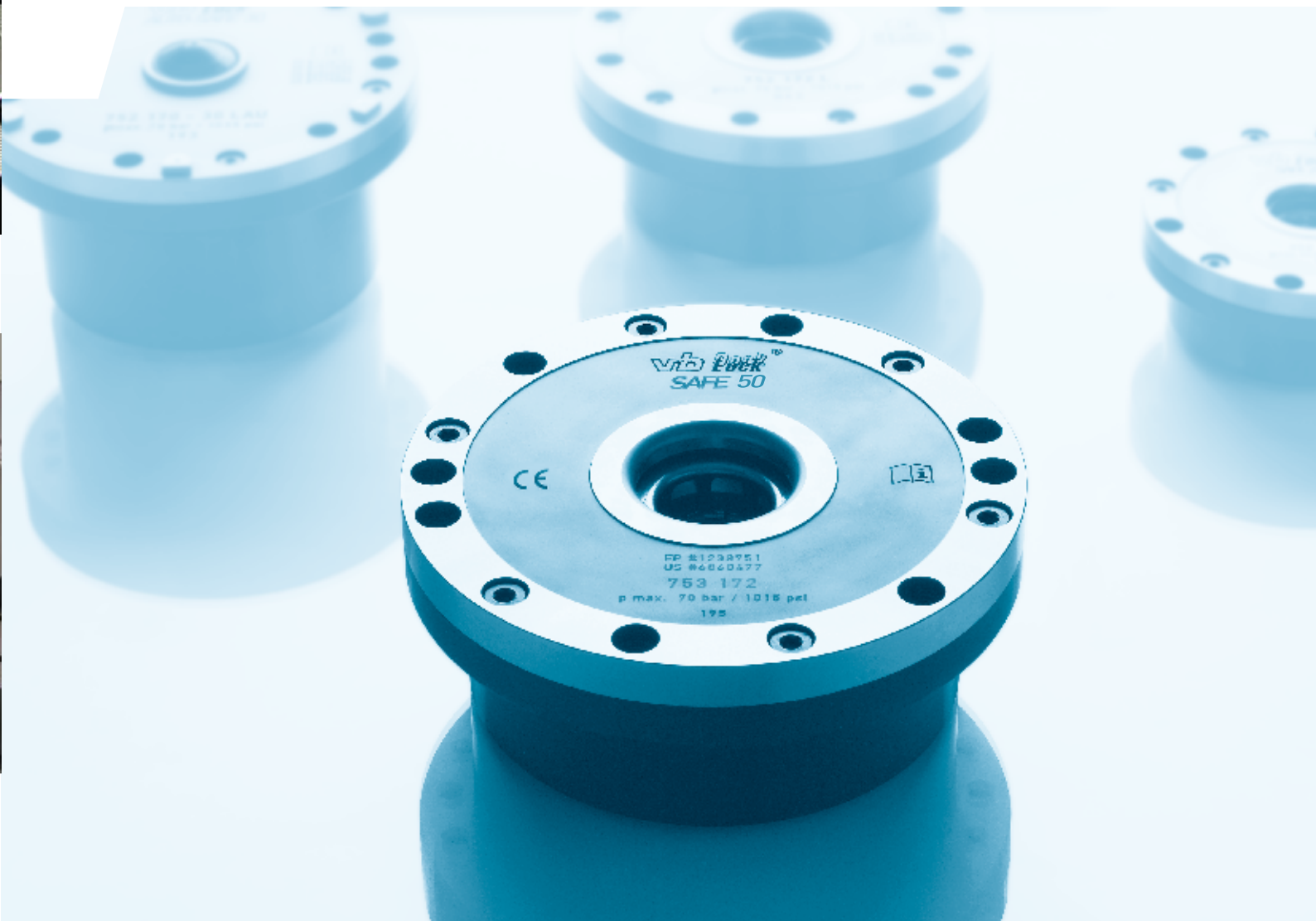
7.52

vb DOCK LOCK[®]

SAFE 50

Pull-in force per unit: 30'000 N
Retention force per unit: 90'000 N

Flanged cylinders	page	30
Built-up cylinders	page	31
Plugs	page	32 – 33
Accessories	page	34



vb POCK Lock **SAFE 50**

Flanged cylinders

for direct integration into machine tables, pallets and fixtures

7.52 SAFE 50

pull-in force: 30'000 N

retention force: 90'000 N

753172	Standard	753172 I	with indexing grooves
753172 U	with rearside media connection	753172 LI	with air-blast cleaning and indexing grooves
753172 L	with air-blast cleaning	753172 LIU	with air-blast cleaning, indexing grooves and rear side media connection
753172 LU	with air-blast cleaning and rear side media connection		



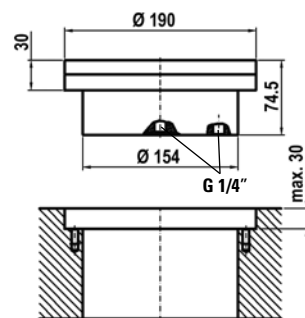
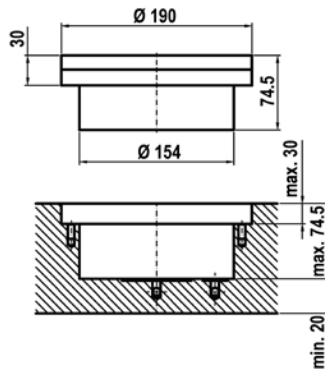
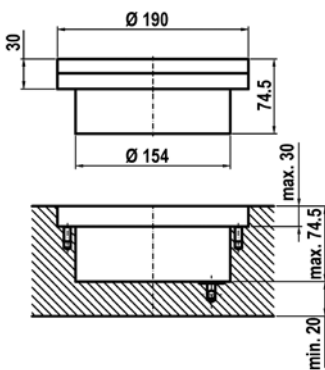
Indexing grooves

Pallets and indexing set screws see page 52

**753172
753172 I**

**753172 L
753172 LI**

**753172 U
753172 LU
753172 LIU**



For in-house mounting please ask for instruction! Max. operating pressure 70 bar / 1015 psi



vb POCK Lock **SAFE 50**

7.52 SAFE 50

Built-up cylinders
for flexible configuration

pull-in force: 30'000 N

retention force: 90'000 N

753178 Standard
753178 L with air-blast cleaning

753178 I with indexing grooves
753178 LI with air-blast cleaning and indexing grooves



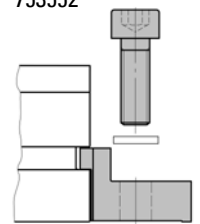
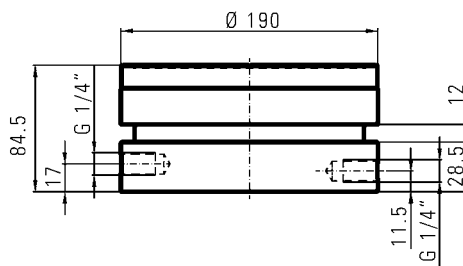
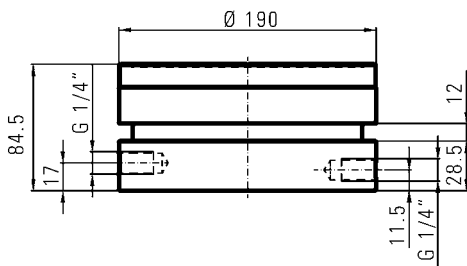
Indexing grooves

Pallets and indexing set screws see page 52

753178
753178 I

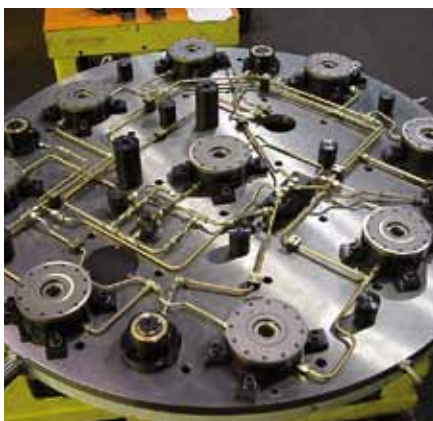
753178 L
753178 LI

Socket head screw M16x45
753552



Bracket
753170

Max. operating pressure 70 bar / 1015 psi



vb POCK Lock SAFE 50

7.52 SAFE 50

Plugs

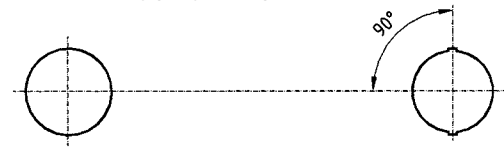
recommended plug arrangement

1 **Centering plug**
- ground $\varnothing 48 \pm 0,01$ mm

The centering plug defines the zero-point.
It centers with the diameter

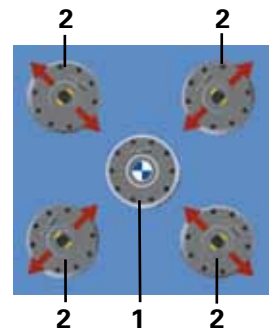
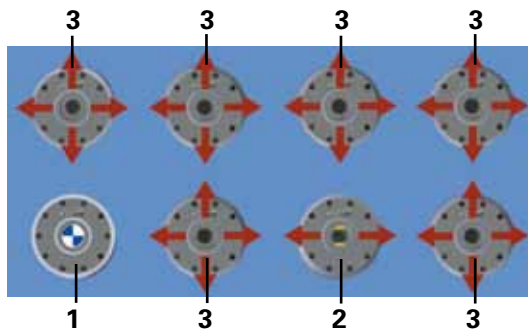
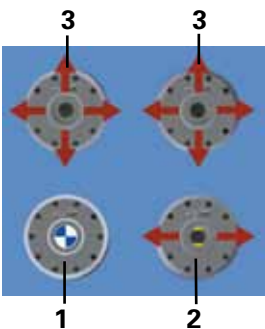
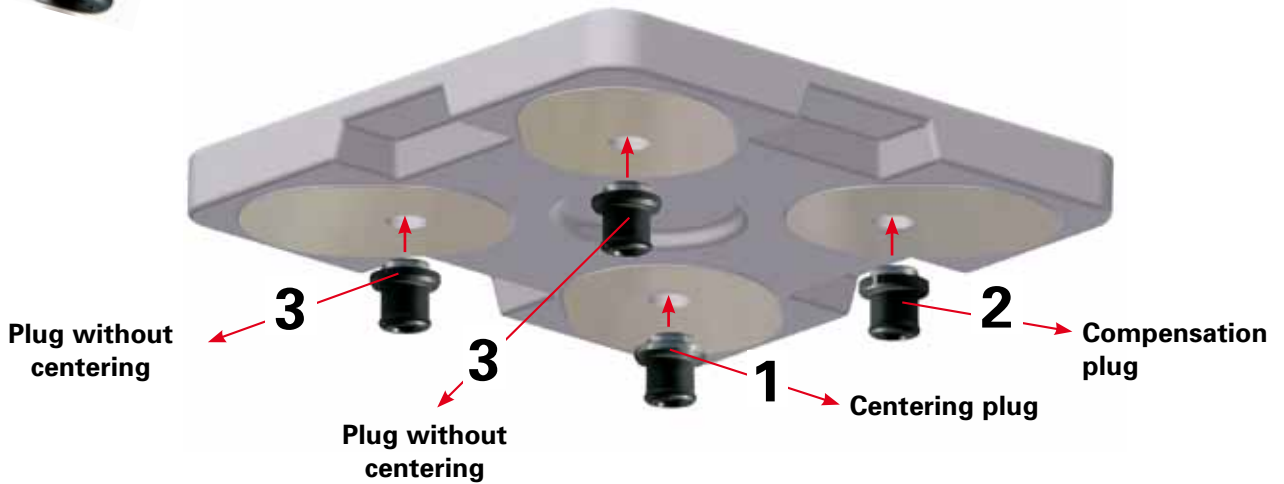
2 **Compensation plug**
- two ground raised cams
 $\varnothing 48 \pm 0,01$ mm

The compensation plug defines the X- or Y-axis.
The came line must be set 90° to the line connecting with
the centering plug. Compensates for variations in temperature.



3 **Plug without centering**
- $\varnothing 46,5 \pm 0,1$ mm

Plugs without centering only serve for clamping

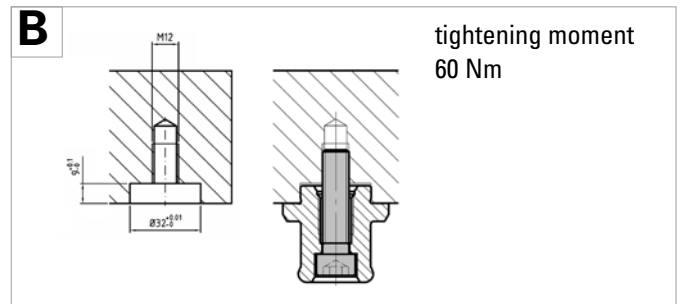
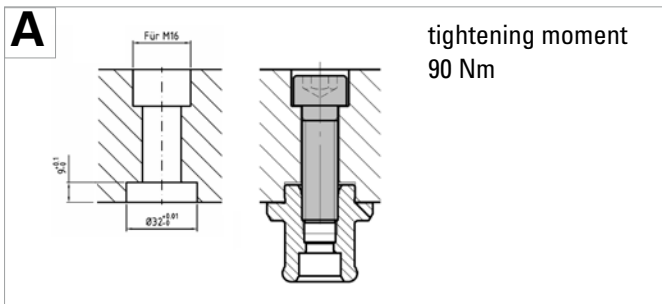


vb POCK-LOCK® **SAFE 50**

7.52 SAFE 50

Plugs
standard

Plug fitting versions (preferably version **A**)



			without air-blast	with air-blast	fitting version A	fitting version B
753702			x	x	x	x
753712			x	x	x	x
753722			x	x	x	x

vb POCK-LOCK **SAFE 50**

Accessories

7.52 SAFE 50

<p>753591 Set up plug for built-up cylinder</p>																										
<p>753551 Socket head screw M12 x 50 (12.9) for mounting plugs from underneath</p>																										
<p>753580 Indexing set screw M10 (12.9) hardened for basic indexing pallet 753 601</p>																										
<p>753998 Brass cover disc for 753 ...</p>																										
<p>753998 $\varnothing 13,5 \pm 0,05$ mm thickness 1 mm</p>																										
<p>Swarf protection of counterbores on vb <small>POCK-LOCK</small> units Attention: most important for automated applications Fitting: fit flush by using a plastic faced hammer Removal: Strike the center with a small punch and pull out with a scriber or similar tool.</p>																										
<p>775 ... T-slot Nuts</p>																										
	<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>kg</th> </tr> </thead> <tbody> <tr> <td>775 PT06 1816</td> <td>28,0</td> <td>20,0</td> <td>17,7</td> <td>10,5</td> <td>M16</td> <td>30</td> <td>0,085</td> </tr> <tr> <td>775 PT06 2016</td> <td>32,0</td> <td>20,0</td> <td>19,0</td> <td>11,9</td> <td>M16</td> <td>30</td> <td>0,098</td> </tr> </tbody> </table>		A	B	C	D	E	F	kg	775 PT06 1816	28,0	20,0	17,7	10,5	M16	30	0,085	775 PT06 2016	32,0	20,0	19,0	11,9	M16	30	0,098	
	A	B	C	D	E	F	kg																			
775 PT06 1816	28,0	20,0	17,7	10,5	M16	30	0,085																			
775 PT06 2016	32,0	20,0	19,0	11,9	M16	30	0,098																			
<p>Other sizes see catalogue 7 page 85</p>																										

<p>753556 Socket head screw M8 x 40 low head for flange mounting</p>		
<p>753159 Aluminium cover</p>		
<p>753534 Cover plug</p>		
<p>753170 Bracket</p>		
<p>753552 Socket screw M16 x 45 for bracket 753 170</p>		
<p>753 00095 Collet</p>		
<p>753 00094 circular spring</p>		
<p>753165 Spacers used to compensate height variations on cavities for flanged cylinders SAFE 50 Thickness 3 mm</p>		
<p>753023-1 Washer for inclined lifting</p>		

zero-point clamping

7.52



AutoSAFE

Pull-in force per unit: 20'000 N
Retention force per unit: 60'000 N

Automated manufacturing with the highest degree of security!

Flanged cylinders

Plugs

Accessories

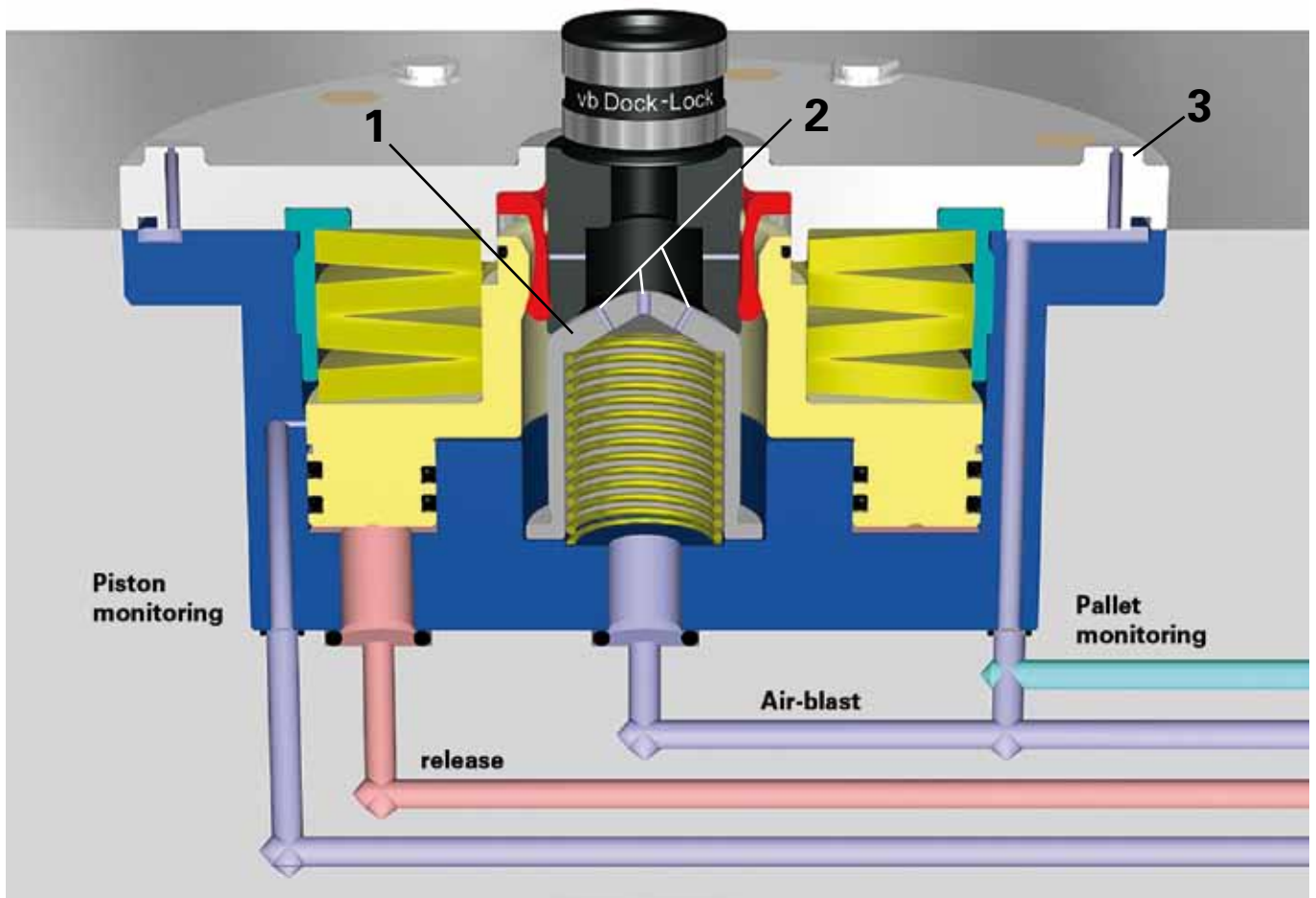
page	36
page	37
page	38 – 39
page	40



vb DOCK-LOCK AutoSAFE

Automated manufacturing with the highest degree of security!

7.52 AutoSAFE



The AUTO SAFE Series are representing a veritable break-through for the automation of zero-point workholding

- total protection from dirt by automatical sealing of the collet lock *1.
- air-blast cleaning from swarf and coolant through the center *2 and support isles *3.
- absolut operational security by monitoring of piston position and isle surfaces.
- pre-locking effect of the collet, important on vertical arrays.
- form-fit connection between the patented collet lock and the plugs through large contact area.
- the pre-centering of the plug facilitates the automated loading.
- accessible from the top makes for easy servicing.

vb POCK Lock **AutoSAFE 30**

7.52 AutoSAFE

Flanged cylinders

automated manufacturing with the highest degree of security!

pull-in force: 20'000 N

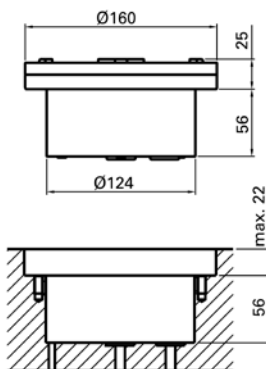
retention force: 60'000 N

752170-31 LAK with air-blast cleaning through center, and support isles, pneumatic support control for isles, hydraulic piston position monitoring

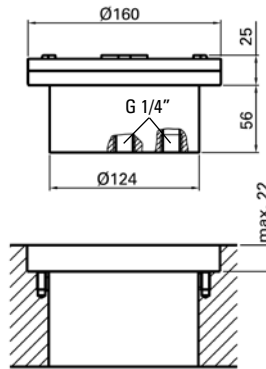
752170-31 LAUK with air-blast cleaning through center, and support isles, pneumatic support control for isles, hydraulic piston position monitoring, rear side media connection



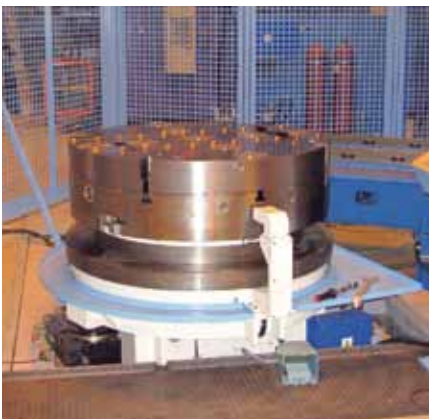
752170-31 LAK



752170-31 LAUK



For in-house mounting please ask for instruction! Operating pressure 70 bar / 1015 psi (max. 95 bar / 1358 psi)




vb POCK Lock AutoSAFE 30


7.52 AutoSAFE

Plugs

recommended plug arrangement

1  **Centering plug**
- ground $\pm 0,01$ \varnothing 30 mm

The centering plug defines the zero-point. It centers with the diameter

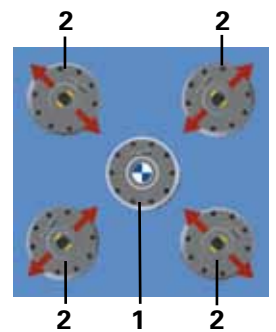
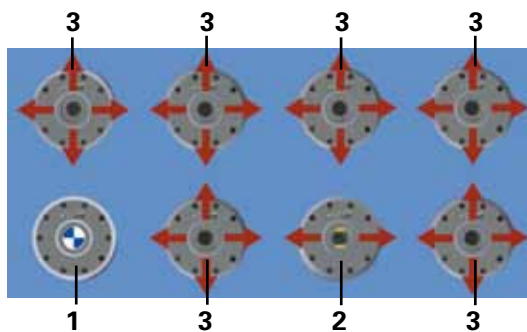
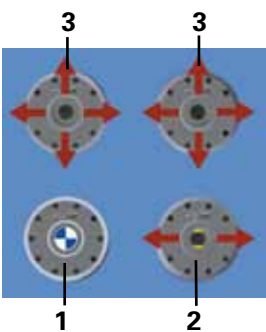
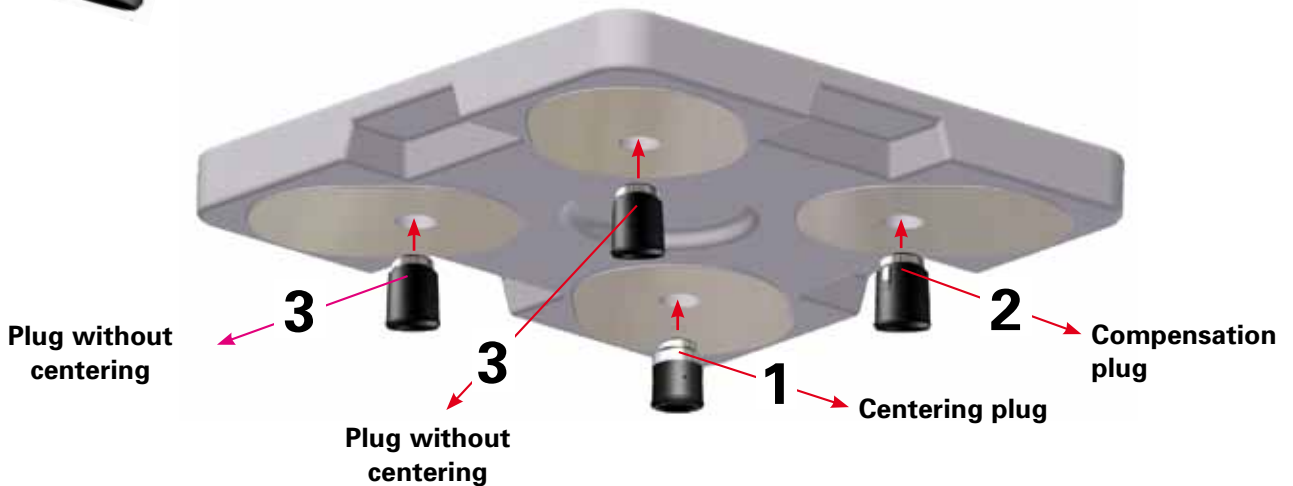
2  **Compensation plug**
- two ground raised cams \varnothing 30 $\pm 0,01$ mm

The compensation plug defines the X- or Y-axis. The came line must be set 90° to the line connecting with the centering plug. Compensates for variations in temperature.



3  **Plug without centering**
- \varnothing 28,9 $\pm 0,05$ mm

Plugs without centering only serve for clamping

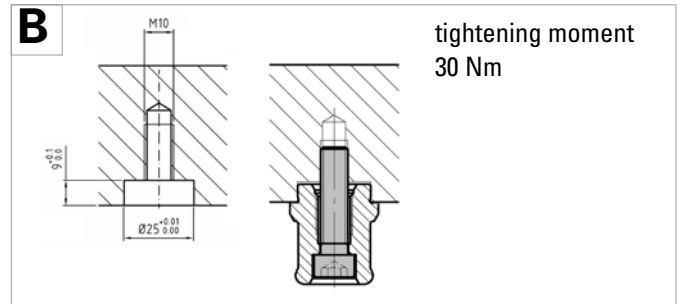
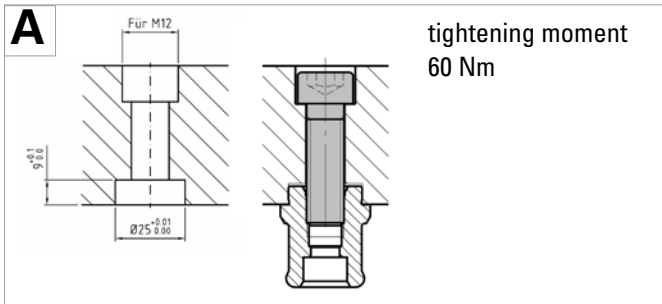


vb POCKLOCK AutoSAFE 30

Plugs

7.52 AutoSAFE

Plug fitting versions (preferably version A)



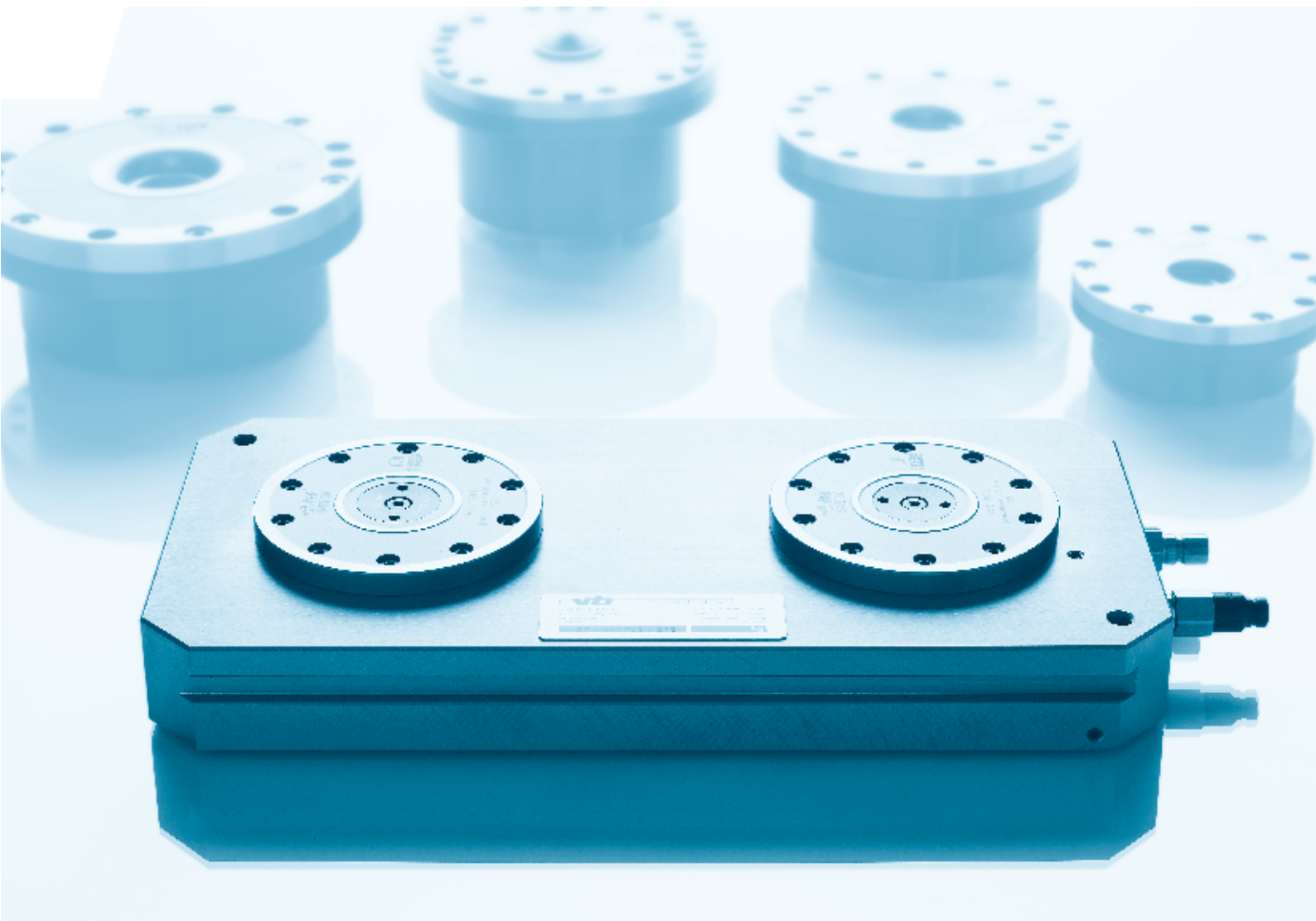
			without air-blast	with air-blast	fitting version A	fitting version B
752704 Centering plug			X	X	X	X
752714 Plug without centering			X	X	X	X
752724 Compensation plug			X	X	X	X
752705 Centering plug long version			X	X	X	X
752715 Plug without centering long version			X	X	X	X
752725 Compensation plug long version			X	X	X	X

zero-point clamping

7.52 SAFE



Combination base plates	page 42 – 43
Standard base plates and sets	page 44 – 46
Standard angle plate and cubes	page 47
Custom made solutions	page 48
Grid pallets	page 49
Standard- and indexable pallets	page 50 – 52



vb DOCK Lock® **SAFE 20 / 30 / 50**

7.52 SAFE

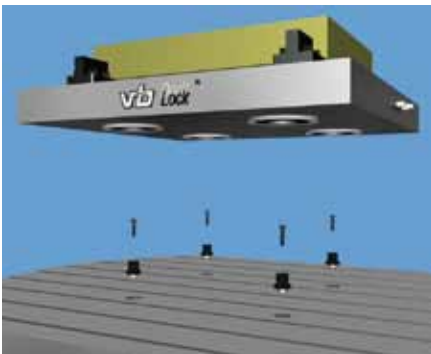
Combination base plates with integrated cylinders

NEW

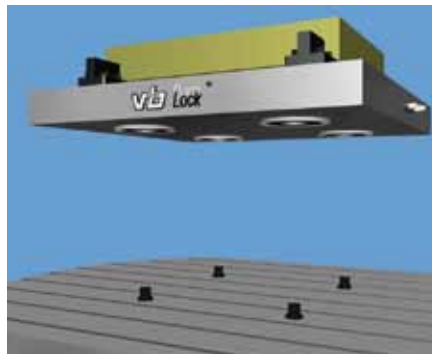
especially suitable for large machine tool

- no need to remachine machine table.
- will clamp to any machine-tool fitted with plugs.
- Machine-tool can be used with or without DockLock.

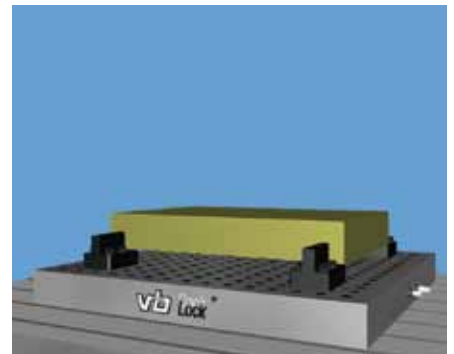
Mount plugs to machine table



Fit combination plate with work-piece outside machine



Clamp combination plate to machine table

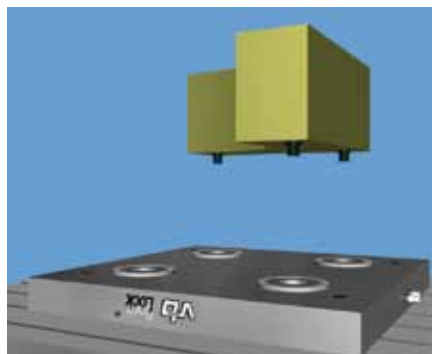


Combination plate can be used conventional

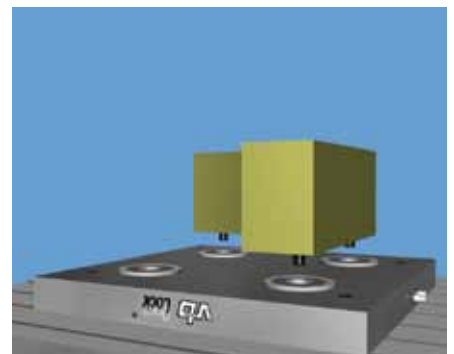
Mount combination plate to machine-tool table



Fit work piece or fixture with plugs



Clamp onto combination plate



Set-up on both applications are done outside the machining time.

vb POCK
Lock® **SAFE 20 / 30 / 50**

Combination base plates
with integrated cylinders

7.52
SAFE

752260

Combination base plate without air-blast
incl. 4 x Safe 30SL flanged cylinders
Spacing 500 x 500 mm
Dimension 800 x 800 x 100 mm
Grid 50 mm, 16F7 / M16



vb POCK-LOCK® **SAFE 20**

7.52 SAFE 20

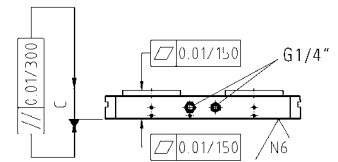
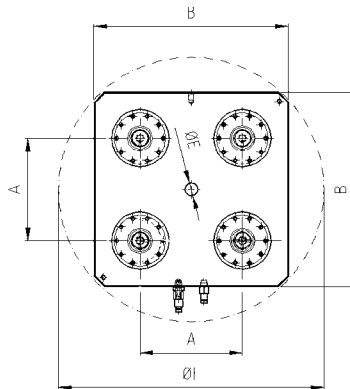
Standard base plates
with patented collet lock

pull-in force: 50'000 N

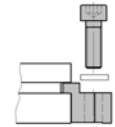
retention force: 160'000 N

4 unit plate with lateral clamping grooves and alignment face

- 752200** with air-blast cleaning, spacing 200 x 200 mm
- 752250** with air-blast cleaning, spacing 250 x 250 mm



Socket head screw M12x35
751175



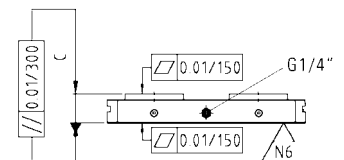
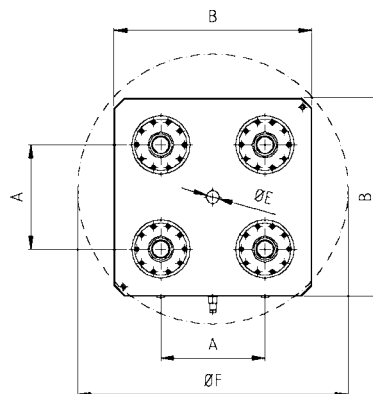
Bracket
751172

order coupling collar for air 758 816, separately see page 54.

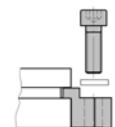
	A mm (Spacing)	B mm	C mm	E mm	F mm
752200	200 x 200 ±0,01	380 x 380	55 ±0,01	25 H6	518
752250	250 x 250 ±0,01	445 x 445	55 ±0,01	25 H6	610

4 unit plate with lateral clamping grooves and alignment face

- 752205** without air-blast cleaning, spacing 200 x 200 mm
- 752255** without air-blast cleaning, spacing 250 x 250 mm



Socket head screw M12x35
751175



Bracket
751172

	A mm (Spacing)	B mm	C mm	E mm	F mm
752205	200 x 200 ±0,01	380 x 380	55 ±0,01	25 H6	518
752255	250 x 250 ±0,01	445 x 445	55 ±0,01	25 H6	610

vb POCK-LOCK® **SAFE 20**

7.52 SAFE 20

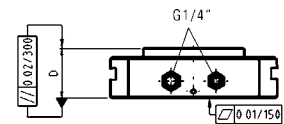
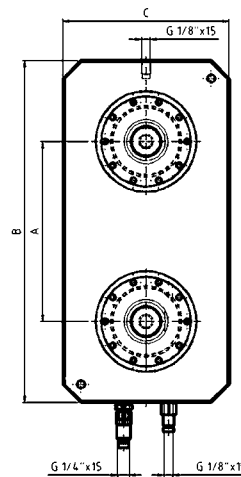
Standard base plates
with patented collet lock

pull-in force: 25'000 N

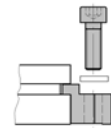
retention force: 80'000 N

2 unit plate with lateral clamping grooves

752220 with air-blast cleaning, spacing 200 mm



Socket head screw M12x35
751175



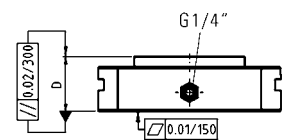
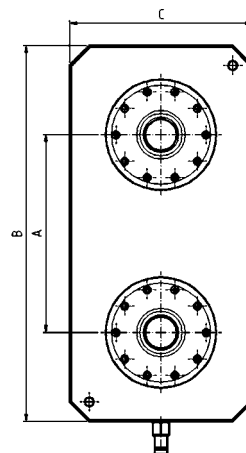
Bracket
751172

order coupling collar for air 758 816, separately see page 54.

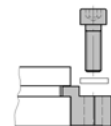
	A mm (Spacing)	B x C mm	D mm
752220	200 ±0,01	380 x 185 ±0,2	55 ±0,01

2 unit plate with lateral clamping grooves

752225 without air-blast cleaning, spacing 200 mm



Socket head screw M12x35
751175



Bracket
751172

	A mm (Spacing)	B x C mm	D mm
752225	200 ±0,01	380 x 185 ±0,2	55 ±0,01

vb POCK-LOCK® **SAFE 20**

7.52 SAFE 20

Standard sets
with patented collet lock

pull-in force: 50'000 N

retention force: 160'000 N

4 unit base plate set

- 752202** with air-blast cleaning, spacing 200 x 200 mm
- 752252** with air-blast cleaning, spacing 250 x 250 mm

- 752207** without air-blast cleaning, spacing 200 x 200 mm
- 752257** without air-blast cleaning, spacing 250 x 250 mm

1 standard base plate





2 centering plugs

4 plugs without centering

2 compensation plugs

4 cover plugs

2 unit base plate set

- 752222** with air-blast cleaning, spacing 200 mm

- 752227** without air-blast cleaning, spacing 200 mm

1 standard base plate





2 centering plugs

2 compensation plugs

4 cover plugs

758800-1
pressure pump, 220 Volt or 110 Volt
please order separately

see page 53



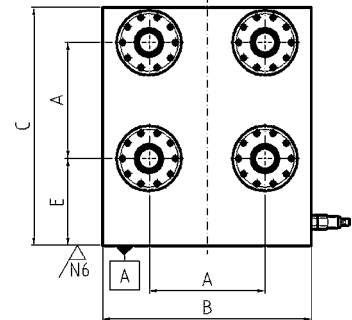
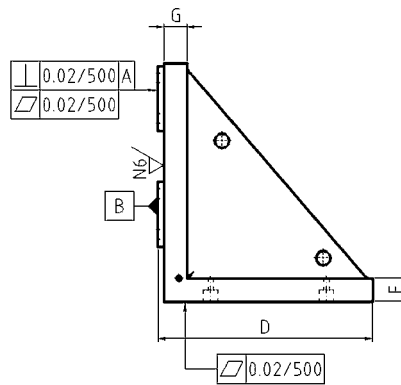
vb POCK-LOCK **SAFE 20**

Standard angle plate and cubes
with patented collet lock

7.52 SAFE 20

Angle plate

752320 with 4 units, spacing 200 x 200 mm

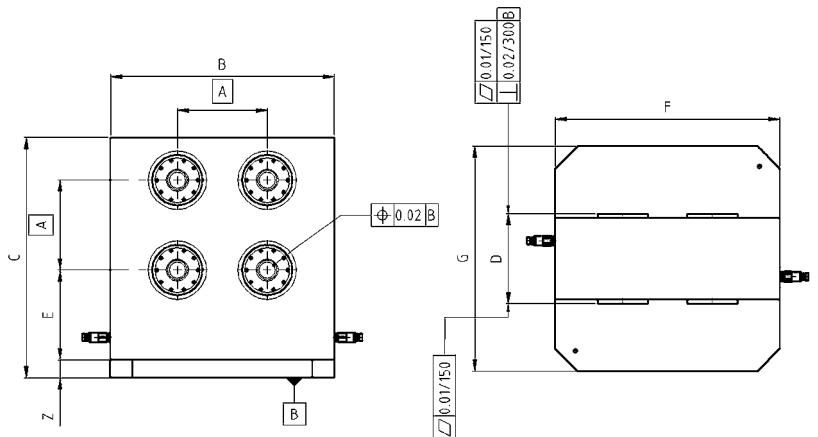


	A mm (spacing)	B x C x D mm	E mm	F mm	G mm
752320	200 x 200 ±0,01	360 x 410 x 370	150 ±0,01	40	40

Enquiries for other configurations and spacings invited.

Cube

752428 with 8 units, spacing 200 x 200 mm, base plate 500 x 500 mm



	A mm (spacing)	B x C x D mm	E mm	F mm	G mm	Z mm
752428	200 x 200 ±0,01	500 x 600 x 210	200 ±0,01	500	500	50

Custom made on request.

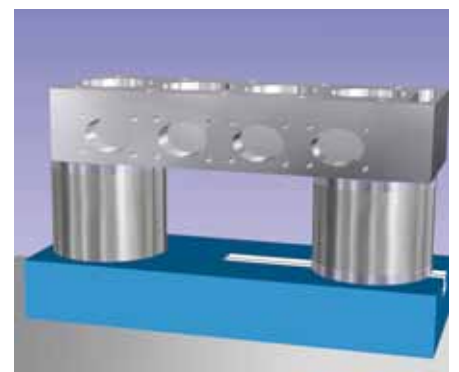
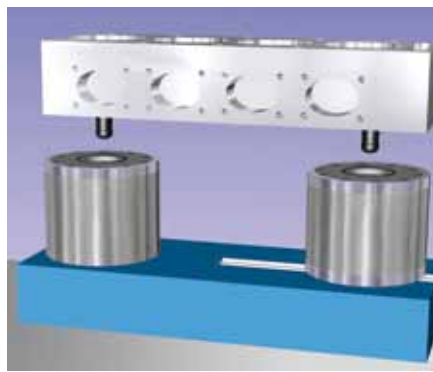
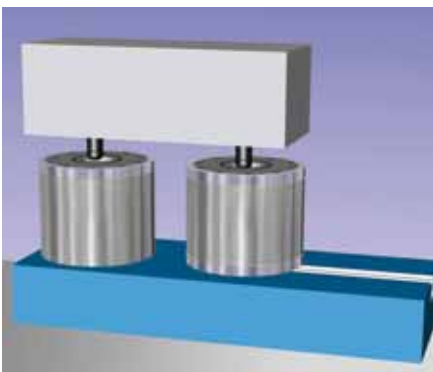
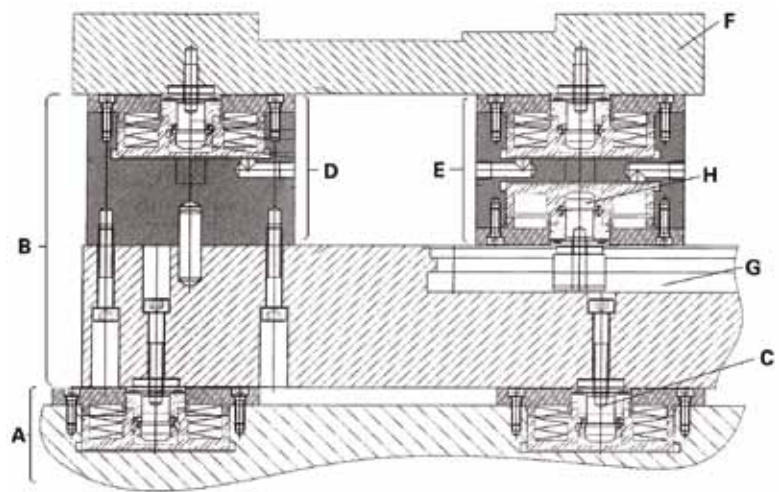
vb POCK-LOCK SAFE 20

Custom made solutions

direct mounting of plugs into the workpiece

7.52 SAFE 20

also for 5 / 6 side machining



for the transition from the fixed spacing of the **vb** POCK-LOCK -system on a machining table to any other variable spacings. E.g. direct clamping of a workpiece mounted with plugs on **vb** POCK-LOCK cylinders.

1) clamped into the **existing vb** POCK-LOCK -system **A** with **fixed** spacing is the "Unibeam" **B**. The underside is provided with plugs **C** that correspond to the spacing of the existing system.

2) The top side of the Unibeam comprises one fixed **vb** POCK-LOCK cylinder **D** and one double-sided **vb** POCK-LOCK cylinder **E** movable in one axis..

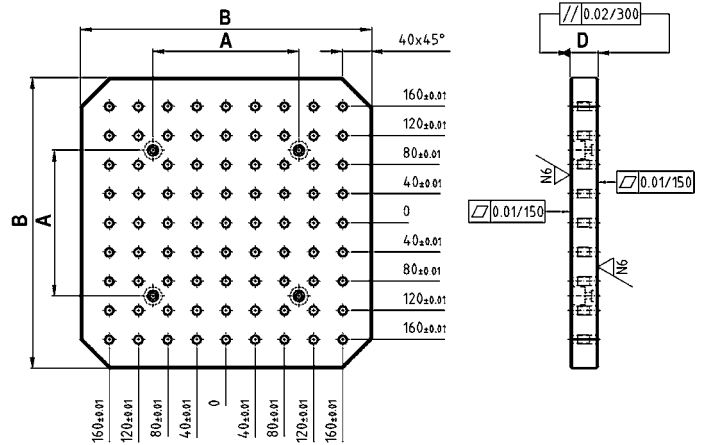
3) The movable **vb** POCK-LOCK cylinder **E** is adapted to the spacing of the workpiece **F** and fixed via a plug **H** located in a T-slot **G**...

vb POCK Lock **SAFE 20**

7.52 SAFE 20

Grid pallets with plug bores

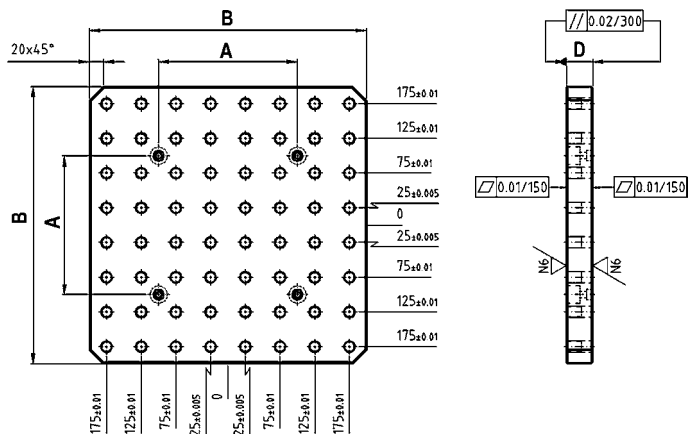
751630 Grid 40 ±0,01 mm
Hardened bushes 12F7 / M12



	A mm (spacing)	B mm	D mm	Material	Number of bores
751630	200x200 ±0,01	399 x 399	38 ±0,01	CK45	81

Andere Grössen und / oder Toleranzen siehe Kat.Nr.7 oder auf Anfrage.

751631 Grid 50 ±0,01 mm
Hardened bushes 16F7 / M16



	A mm (spacing)	B mm	D mm	Material	Number of bores
751631	200x200 ±0,01	399 x 399	38 ±0,01	CK45	64

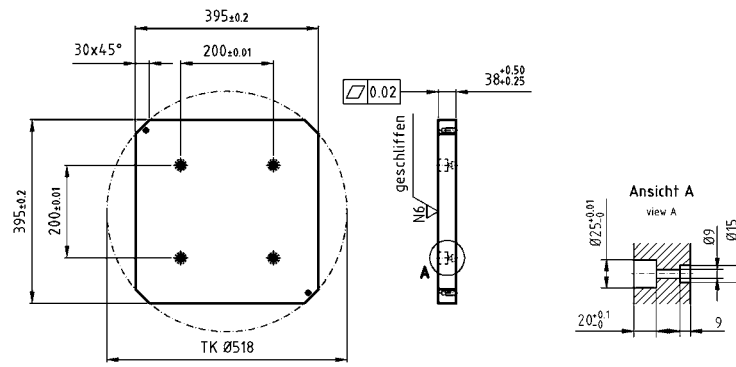
Custom made on request or see catalogue 7.

vb POCK-LOCK **SAFE 20**

Standard pallets

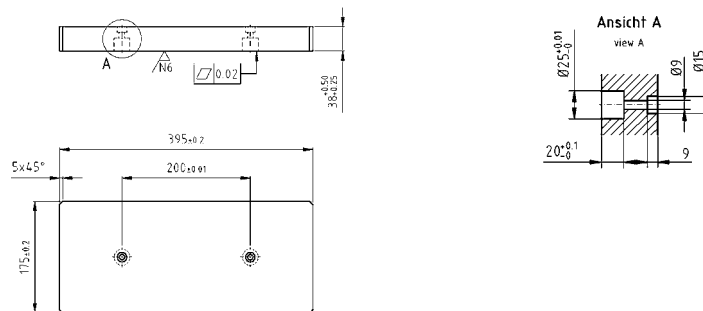
7.52 SAFE 20

751610 Basic pallet, in St. 52 steel, spacing 200 x 200 mm
plug bores, top face raw machined
plug bore face ground



751620 Basic pallet, in St. 52 steel, spacing 200 mm
half size, 2 plug bores, top face raw machined
plug bore face ground

751621 Basic pallet, high-strength aluminium, spacing 200 mm
half size, 2 plug bores, top face raw machined
plug bore face ground

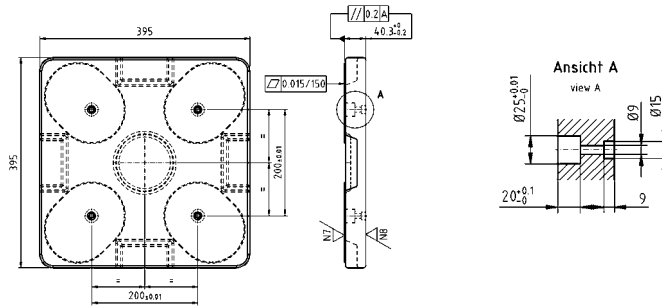
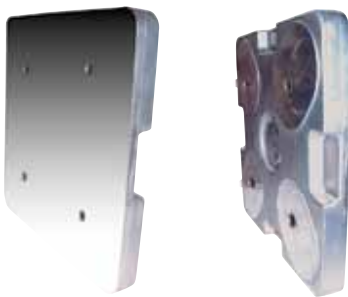


vb POCK-LOCK® **SAFE 20**

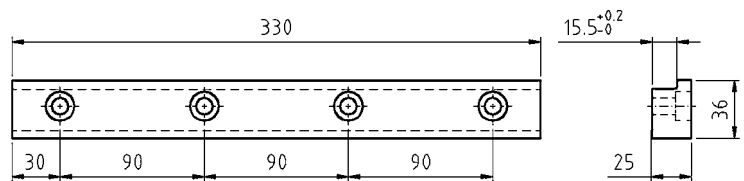
Standard pallets

7.52 SAFE 20

- 751615** Basic pallet, **spacing 200 x 200 ±0,01 mm**
in high-strength aluminium cast, 4 plug bores
- 751617** Basic pallet, **spacing 250 x 250 ±0,01 mm**
in high-strength aluminium cast, 4 plug bores



- 751 176** Cucking claw rail, suitable for machine vice



vb POCK Lock **SAFE 20 / 30 / 50**

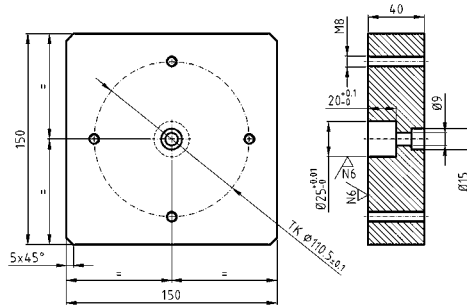
7.52 SAFE

Indexable Pallets

751601

Mini-basic pallet
indexable in high-strength aluminium
with plug bore, 4 indexing set screws mounted Nr. 751 580

SAFE 20



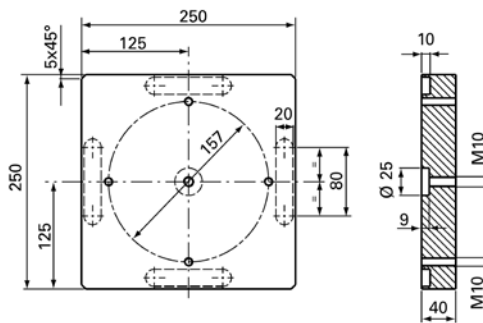
751580
Indexing set screw
(hardened)



752601

Basic pallet
indexable in high-strength aluminium
with plug bore, 4 indexing set screws mounted Nr. 753 580

SAFE 30



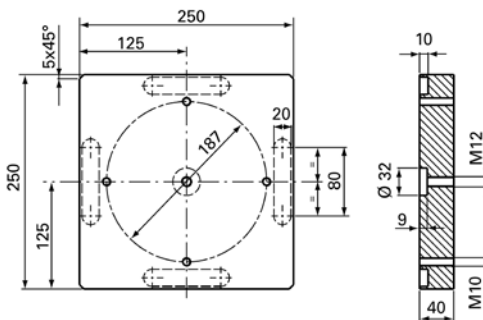
753580
Indexing set screw
(hardened)751 580



753601

Basic pallet
indexable in high-strength aluminium
with plug bore, 4 indexing set screws mounted Nr. 753 580

SAFE 50



753580
Indexing set screw
(hardened)751 580



zero-point clamping

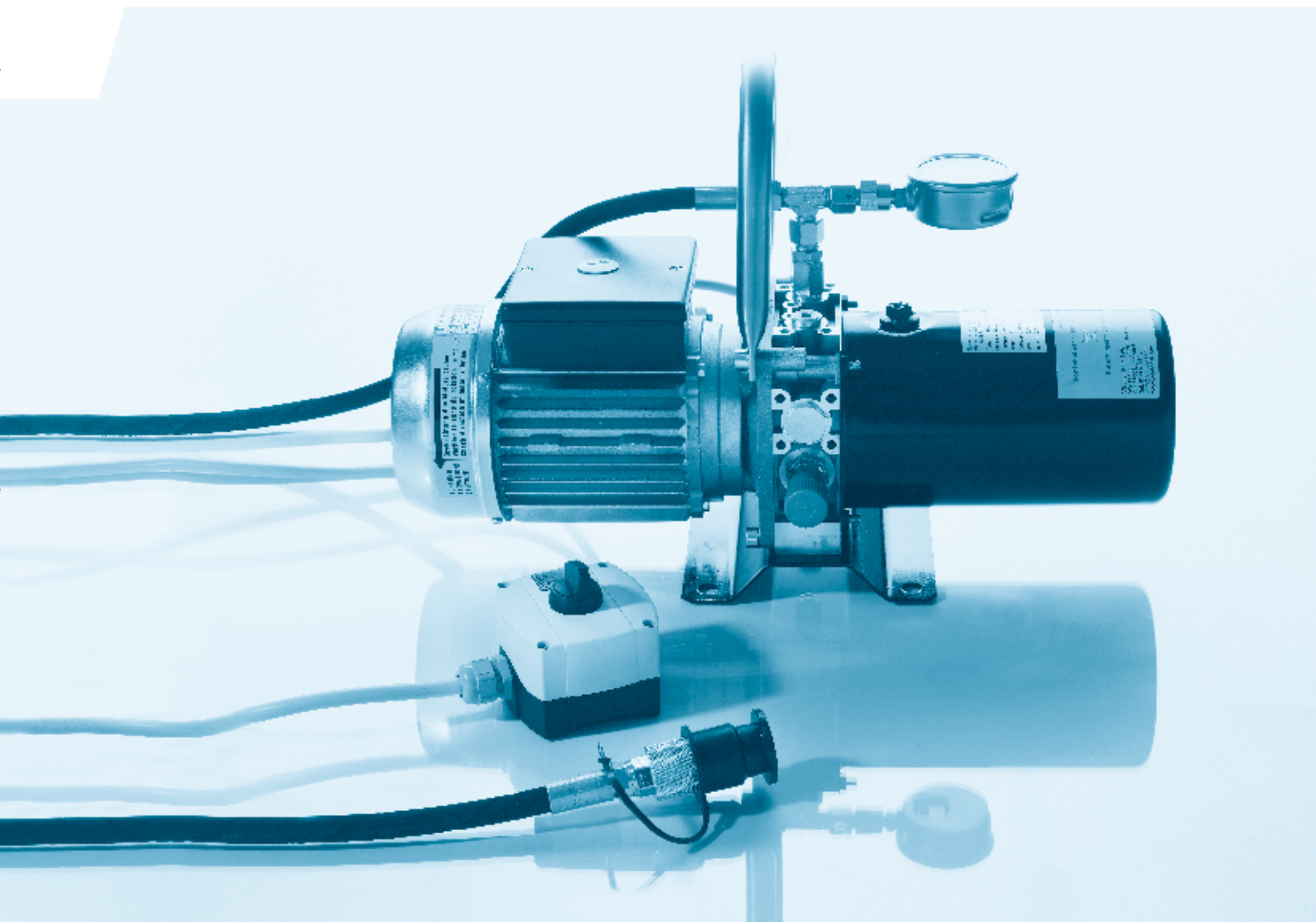
vb DOCK⁺
LOCK[®]

7.52
SAFE

Pressure units
spare parts

page 54

page 55 – 57



vb POCK Lock Pressure units

Hydraulic pumps
for SAFE, AUTO SAFE

7.52
SAFE

758800-1-220V Input: 220 Volt
Output: 65 bar / 950 psi oil pressure

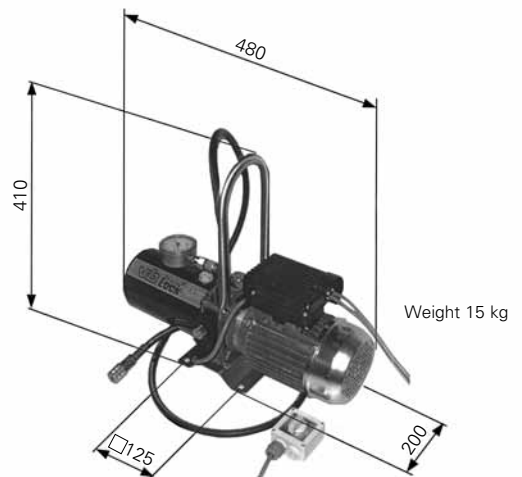
758800-1-110V Input: 110 Volt
Output: 65 bar / 950 psi oil pressure

Oil flow: 2,3 l/min
Oil volume: 2 l
recommended for 1 to 30 units **SAFE 20**
for 1 to 15 units **SAFE 30**
for 1 to 8 units **SAFE 50**

758800-5L Input: 220 Volt
Output: 65 bar / 950 psi oil pressure

Oil flow: 5.5 l/min
Oil volume: 5 l
recommended up to 20 units **SAFE 20**
up to 10 units **SAFE 30**
up to 6 units **SAFE 50**

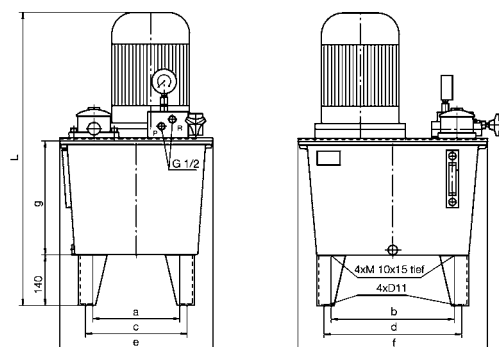
recommended hydraulic oil: ISO-VG 32-46



758806-3-24 Input: 400 Volt / 16A Output: 65 bar / 950 psi oil pressure

Oil volume: 24 l
recommended for up to 60 units **SAFE 30 / 50**

recommended hydraulic oil: ISO-VG 32-46



vb POCK Lock Pressure units

7.52 SAFE

Hydraulic pumps for SAFE, AUTO SAFE

758790 Electric hydraulic pump
Input 220 Volt
Output: 65 bar / 950 psi oil pressure
Piston position monitoring
with pneumatic flow rate meter
Control panel: clamped, released, error-clampind
(in combination with 758800-1-220V or 758800-5L)



758791 Air / oil Booster for
constant hydraulic pressure
Input: up to 6 bar air pressure
Output: 65 bar / 950 psi oil pressure
for up to 20 Units **SAFE 50**

















758792 Air / air Booster
Input: up to 6 bar / 87 psi air pressure
Output: up to 65 bar / 950 psi air pressure



vb POCK-LOCK® Hydraulic components

spare parts
















7.52 SAFE

758808	2 m replacement hose without coupling	
758809	3 m replacement hose without coupling	
758809-1	4 m replacement hose without coupling	
758802	2 x 3 m Twin hose without coupling	
auf Anfrage	3 x 3 m Threefold hose without coupling	
758811	Coupling plug G 1/8" air	
758811-1	Dust cap	
758816	Coupling collar G 1/8" air	
758812	Coupling plug G 1/4" oil	
758812-1	Dust cap	
758813	Coupling collar G 1/4" oil	
758813-1	Dust cap	
758814	Reduction long G 1/8" x G 1/4"	
758838	Reduction long G 3/8" x G 1/4"	
758820	Distributor block G 1/4" (1t)	
758821	Distributor block G 1/4" (2+3t)	
758822	Distributor block with flow control valves 4 x Air, 4 x Oil with G 3/8" thread	
758823	Distributor block with flow control valves 2 x Air, 2 x Oil with G 3/8" thread	
758825	Distributor block without flow control 2 x 3 units Oil and Air with G 3/8" thread	
758826	Distributor block with flow control Oil with G 3/8" thread	
758829	Non reflux flow control valve for distributor blocks	
758845	Thread reduction piece 1/8" x 3/8"	

vb POCK Lock Hydraulic components

spare parts






7.52 SAFE

758844	Ø 6x G 1/4"	Threaded fitting	
758846	Ø 6x G 3/8"	Threaded fitting	
758841	Ø 8x G 3/8"	Threaded fitting	
758842	Ø 10x G 3/8"	Threaded fitting	
758843	Ø 10x G 3/8"	Threaded fitting	
758847	Threaded reduction piece G 1/4" x G 3/8"		
758848	Double connector piece G 1/4" x G 1/4"		
758849	Double connector piece G 1/8" x G 1/8"		
758850	Threaded reduction piece G 1/4" x G 1/8"		
758851	Double connector piece G 3/8" x G 3/8"		
758830	Threaded plug G 3/4"-16UNF for 758 822 and 758 823		
758852	Threaded plug G 1/4"		
758853	Threaded plug G 1/8"		
758854	Threaded plug G 3/8"		
758855	Threaded fitting Ø 6 x G 1/8"		
758856	Threaded fitting T6		
758857	Threaded fitting W6		
758858	Threaded fitting K6		
758859	Threaded fitting, rotatable		

vb DOCK
Lock® Hydraulic components

spare parts

7.52 SAFE

758860	Hydraulic tube, Ø 6 x 1,5 x 500 mm 10 KN	
758861	Hydraulic tube, Ø 6 x 1,5 x 1000 mm 30 KN	
758871	Cartridge-ball valve	
758872	Cranked lever for Cartridge-ball valve	
753 1-40kN/B	Pull-in force gage controls pull-in force of DockLock cylinder Range up to 40 kN incl. Dock-Lock plugs	

Zero-point clamping

7.52

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