

STOP CYLINDER

TPSR

TPSRS

TPNS

TPHT



Stop-cylinders

Code	Strokes mm	Fa daN	STOP	VDI SAFETY	TPSR	TPSRS	TPNS	TPHT
TPCB 1500	12 - 125	1500	✓	✓	✓	✓	✓	✓
TPCBS 1500	12 - 125	1500	✓	✓	✓	✓	✓	✓
TPCB 2400	12 - 125	2400	✓	✓	✓	✓	✓	✓
TPCBS 2400	12 - 125	2400	✓	✓	✓	✓	✓	✓
TPCBS 3000	12 - 125	3000	✓	✓	✓	✓	✓	✓
TPCB 4500	12 - 125	4500	✓	✓	✓	✓	✓	✓
TPCBS 4500	12 - 125	4500	✓	✓	✓	✓	✓	✓
TPCB 6500	12 - 125	6500	✓	✓	✓	✓	✓	✓
TPCBS 6000	12 - 125	6000	✓	✓	✓	✓	✓	✓



i

Cylinders with stem-controlled movement can stop at the desired working position, with the possibility of deciding when stem withdrawal is to take place by means of an electric signal, in accordance with the application that is being executed.

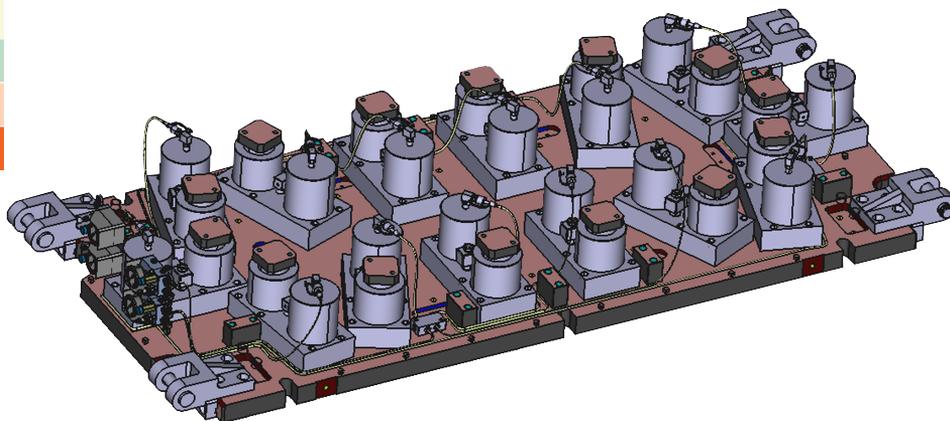
The complete set has the following elements:

- Working cylinder
- Pressure accumulator
- Manifold plate
- Hydraulic valve

The adaptor plate lodges all the elements, communicating them one with another. The working cylinder, which is full of oil, is connected through the adaptor plate to the pressure accumulator. This is subjected in one of its parts to nitrogen gas pressure, thus providing pressure for the whole system. The accumulator has the capacity to absorb the whole of the volume of oil displaced by the working cylinder.

The working cylinder is activated by the movement of the press, displacing the hydraulic volume freely through the adaptor plate up to the pressure accumulator. Once the working stroke has been attained, the hydraulic valve, which is controlled by means of an electric signal, stops the return of hydraulic fluid from the accumulator to the working cylinder, with which the stem movement stops. When the hydraulic valve opens once again, the hydraulic volume returns to the working cylinder, thus bringing about the return of the stem to its stand-by position.

The pressure accumulator is regulated in accordance to pressure device norms, as it is charged with nitrogen gas at a pressure of 150 Bar.

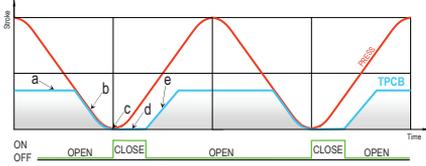


Advanced Features

- ✓ Fulfils European Pressure Equipment Directive 
- ✓ VDI safety features 
- ✓ Stoppable at any stage of the working stroke
- ✓ No cooling system required
- ✓ Commanded by electrical signal
- ✓ Slow return speed (≈ 10 m/min)
- ✓ Application: Self-contained and hoses system
- ✓ Long service-life without maintenance
- ✓ Very easy mounting on the tool
- ✓ Total synchronization in stem expansion
- ✓ It can work in every position and angle
- ✓ Supply voltage: 24V DC, 110V AC, 220V AC



Operation graph



Electro-valve operation

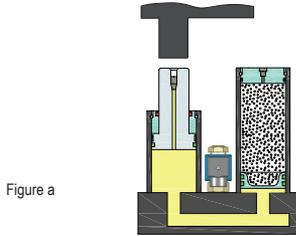


Figure a

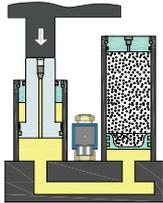


Figure b

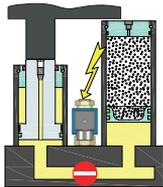


Figure c

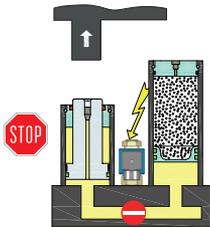


Figure d

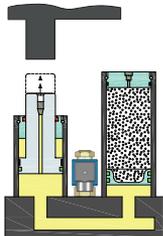
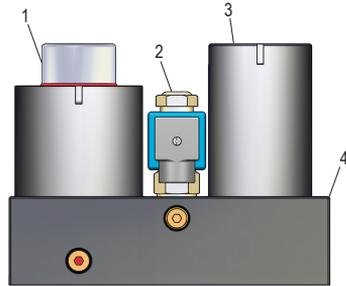


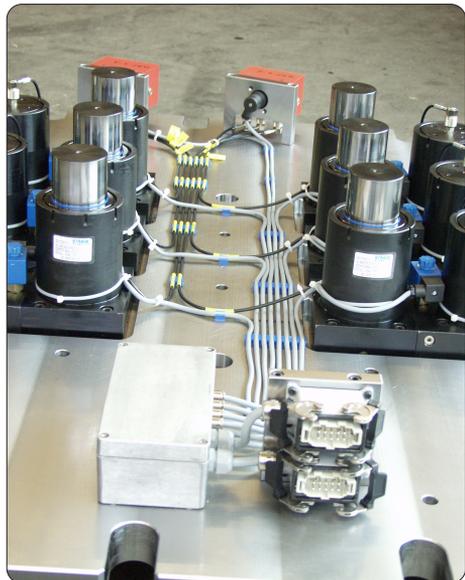
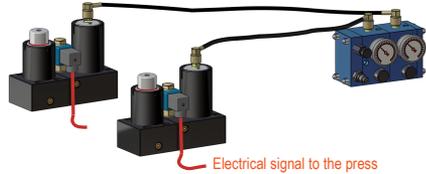
Figure e

Components description

- ① Working cylinder
- ② Hydraulic valve
- ③ Pressure accumulation tank
- ④ Manifold plate



Example of an application connected to a control panel



STOP CYLINDER

TPSR

TPSR5

TPNS

TPHT

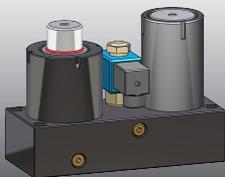




- i
- MICRO
- TITAN
- TPH
- TPS
- TPSP
- TPF
- TPK
- TPC
- TPR
- TPB
- TPHC
- TPA
- TPG
- TPCT
- TPSL
- STOP CYLINDER
- STOP CYLINDER

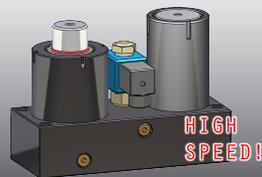
TPCB 1500

Fa. initial: 1500 daN
 Stem speed: 15 - 20 m/min
 Press rate: 8 - 25 spm



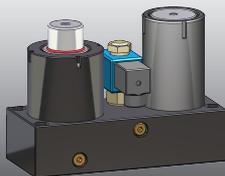
TPCBS 1500

Fa. initial: 1500 daN
 Stem speed: 25 - 30 m/min
 Press rate: 8 - 25 spm



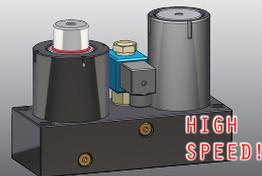
TPCB 2400

Fa. initial: 2400 daN
 Stem speed: 15 - 20 m/min
 Press rate: 8 - 20 spm



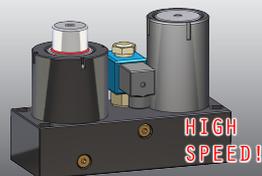
TPCBS 2400

Fa. initial: 2400 daN
 Stem speed: 25 - 30 m/min
 Press rate: 8 - 20 spm



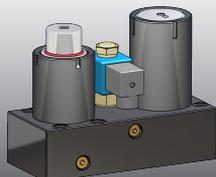
TPCBS 3000

Fa. initial: 3000 daN
 Stem speed: 25 - 30 m/min
 Press rate: 8 - 20 spm



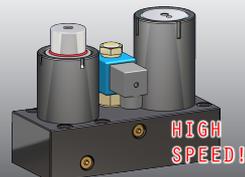
TPCB 4500

Fa. initial: 4500 daN
 Stem speed: 15 - 22 m/min
 Press rate: 8 - 20 spm



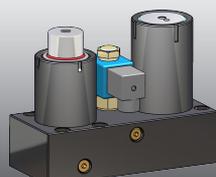
TPCBS 4500

Fa. initial: 4500 daN
 Stem speed: 25 - 30 m/min
 Press rate: 8 - 20 spm



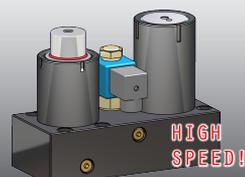
TPCB 6500

Fa. initial: 6500 daN
 Stem speed: 10 - 18 m/min
 Press rate: 8 - 20 spm



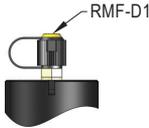
TPCBS 6000

Fa. initial: 6000 daN
 Stem speed: 20 - 30 m/min
 Press rate: 8 - 20 spm

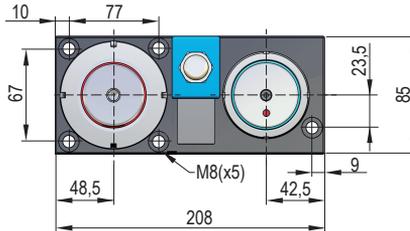
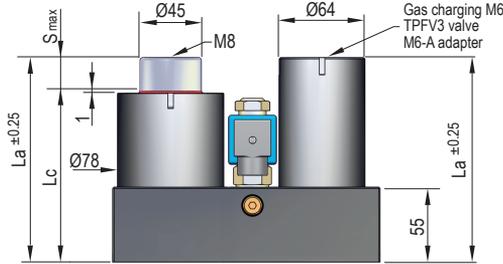




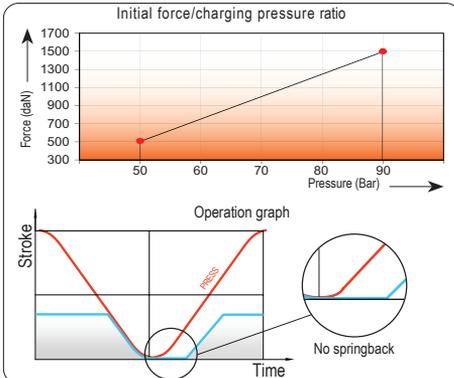
VDI SAFETY



The TPCB 1500 model is also available equipped with RMF-D1. (TPCB 1500x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCB 1500x12	12	124	112		1545	1555	
TPCB 1500x25	25	150	125		1610	1630	
TPCB 1500x38	38	176	138		1650	1675	
TPCB 1500x50	50	200	150	1500 ±5% (20°C)	1675	1705	90 (20°C)
TPCB 1500x63	63	226	163		1690	1725	
TPCB 1500x80	80	260	180		1710	1750	
TPCB 1500x100	100	300	200		1725	1765	
TPCB 1500x125	125	350	225		1740	1785	



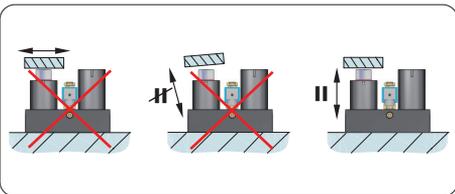
Pressure medium Nitrogen (N₂) / Oil

- Max. charging pressure **90 Bar**
- Min. charging pressure **50 Bar**
- Rod seal area **15,90 cm²**
- Operating temperature **0°C - 60°C**
- Force increase by temperature **0,33 %/°C**
- Max. stem speed **15 - 20 m/min**
- Max. recommended strokes/min **8 - 25* spm**

Required information

- Working stroke **(mm)**
- Press speed **(m/min)**
- Maximum production rate **(spm)**
- Working pressure **(bar)**

* Maximum rate will depend on working parameters



STOP CYLINDER

TPSR

TPSRs

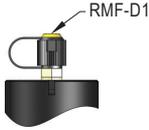
TPNS

TPHT

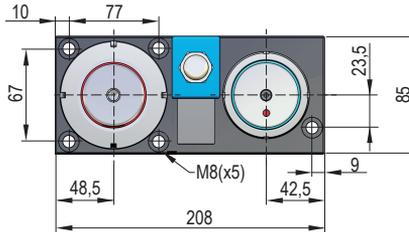
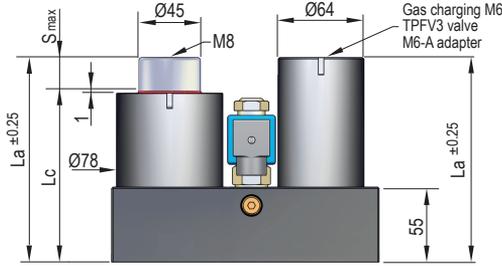




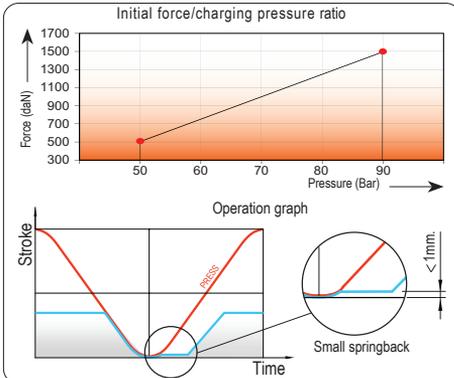
VDI SAFETY



The TPCBS 1500 model is also available equipped with RMF-D1. (TPCBS 1500x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCBS 1500x12	12	124	112	1500 ±5% (20°C)	1545	1555	90 (20°C)
TPCBS 1500x25	25	150	125		1610	1630	
TPCBS 1500x38	38	176	138		1650	1675	
TPCBS 1500x50	50	200	150		1675	1705	
TPCBS 1500x63	63	226	163		1690	1725	
TPCBS 1500x80	80	260	180		1710	1750	
TPCBS 1500x100	100	300	200		1725	1765	
TPCBS 1500x125	125	350	225		1740	1785	



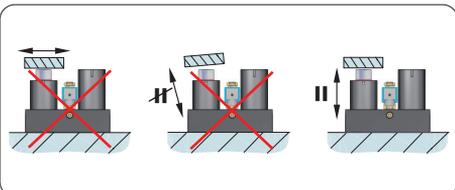
Pressure medium Nitrogen (N₂) / Oil

Max. charging pressure	90 Bar
Min. charging pressure	50 Bar
Rod seal area	15,90 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	25 - 30 m/min
Max. recommended strokes/min	8 - 25* spm

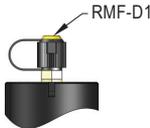
Required information

Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

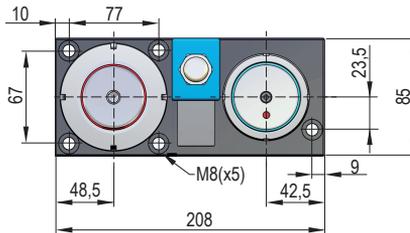
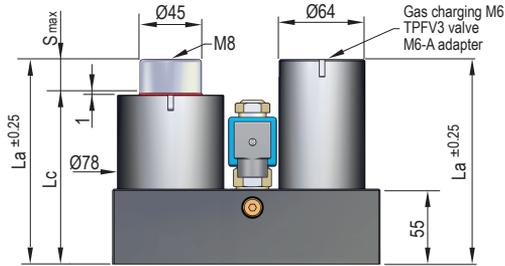
* Maximum rate will depend on working parameters



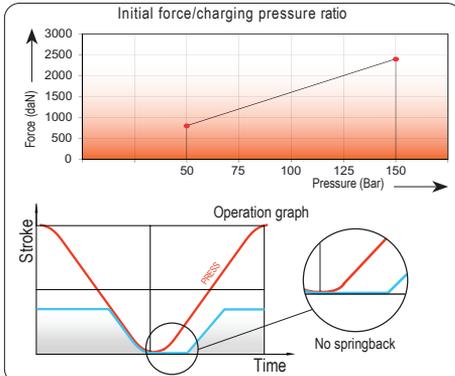
VDI SAFETY



The TPCB 2400 model is also available equipped with RMF-D1. (TPCB 2400x...C-Linked)



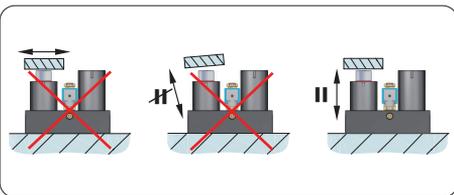
Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCB 2400x12	12	124	112	2400 ±5% (20°C)	2575	2595	150 (20°C)
TPCB 2400x25	25	150	125		2680	2720	
TPCB 2400x38	38	176	138		2745	2795	
TPCB 2400x50	50	200	150		2790	2840	
TPCB 2400x63	63	226	163		2820	2880	
TPCB 2400x80	80	260	180		2850	2915	
TPCB 2400x100	100	300	200		2875	2945	
TPCB 2400x125	125	350	225		2900	2970	



Pressure medium	Nitrogen (N ₂) / Oil
Max. charging pressure	150 Bar
Min. charging pressure	50 Bar
Rod seal area	15,90 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	15 - 20 m/min
Max. recommended strokes/min	8 - 20* spm

Required information	
Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

* Maximum rate will depend on working parameters



STOP CYLINDER

TPSR

TPSRs

TPNS

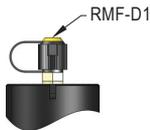
TPHT



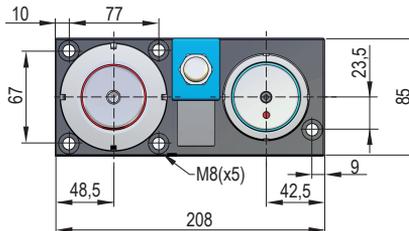
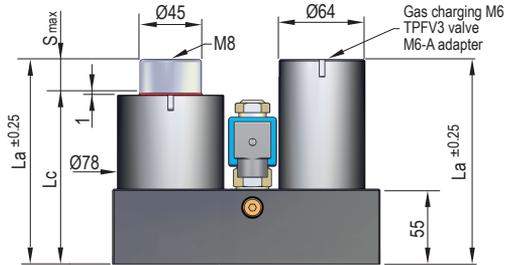
VDI SAFETY



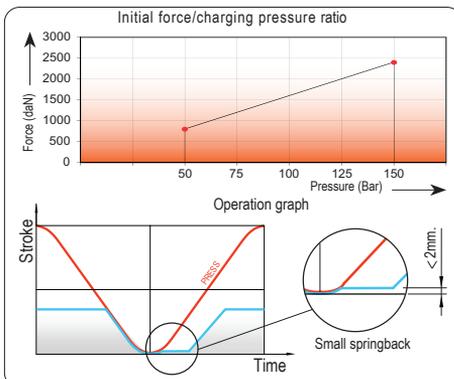
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2014/68/UE



The TPCBS 2400 model is also available equipped with RMF-D1. (TPCBS 2400x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCBS 2400x12	12	124	112	2400 ±5% (20°C)	2575	2595	150 (20°C)
TPCBS 2400x25	25	150	125		2680	2720	
TPCBS 2400x38	38	176	138		2745	2795	
TPCBS 2400x50	50	200	150		2790	2840	
TPCBS 2400x63	63	226	163		2820	2880	
TPCBS 2400x80	80	260	180		2850	2915	
TPCBS 2400x100	100	300	200		2875	2945	
TPCBS 2400x125	125	350	225		2900	2970	



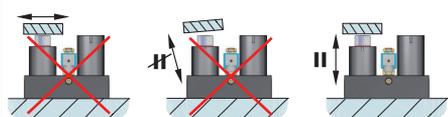
Pressure medium	Nitrogen (N ₂) / Oil
Max. charging pressure	150 Bar
Min. charging pressure	50 Bar
Rod seal area	15,90 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	25 - 30 m/min
Max. recommended strokes/min	8 - 20* spm



Required information

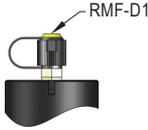
Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

* Maximum rate will depend on working parameters

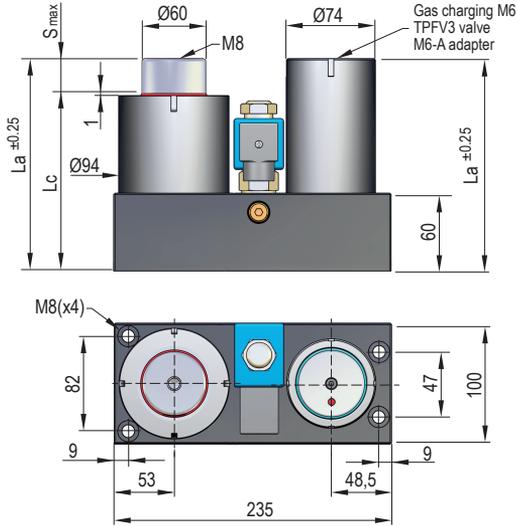




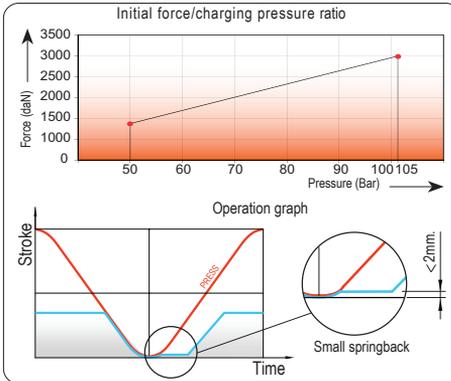
VDI SAFETY



The TPCBS 3000 model is also available equipped with RMF-D1. (TPCBS 3000x...C-Linked)



Code	S_{max} mm	La mm	Lc mm	F_a daN	90% F daN	100% F _c daN	P Bar
TPCBS 3000x12	12	140	128	3000 ±5% (20°C)	3215	3240	105 (20°C)
TPCBS 3000x25	25	166	141		3370	3425	
TPCBS 3000x38	38	192	154		3475	3540	
TPCBS 3000x50	50	216	166		3545	3620	
TPCBS 3000x63	63	242	179		3600	3685	
TPCBS 3000x80	80	276	196		3655	3750	
TPCBS 3000x100	100	316	216		3700	3805	
TPCBS 3000x125	125	366	241		3745	3855	



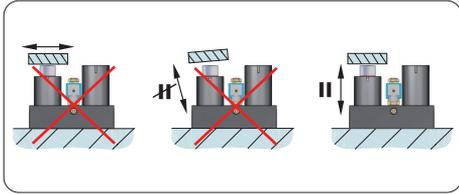
Pressure medium: **Nitrogen (N₂) / Oil**

Max. charging pressure	105 Bar
Min. charging pressure	50 Bar
Rod seal area	28,27 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	25 - 30 m/min
Max. recommended strokes/min	8 - 20* spm

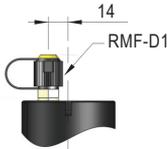
Required information

Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

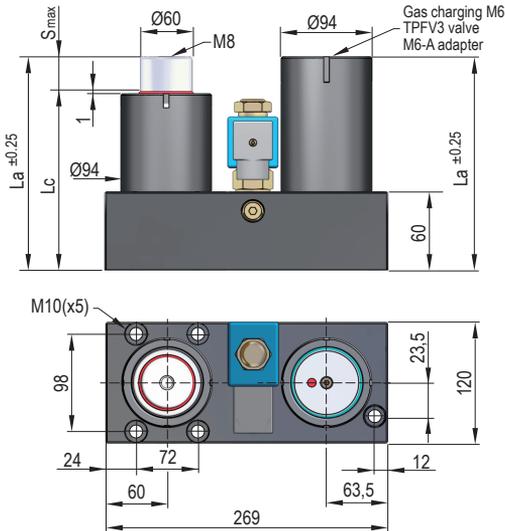
* Maximum rate will depend on working parameters



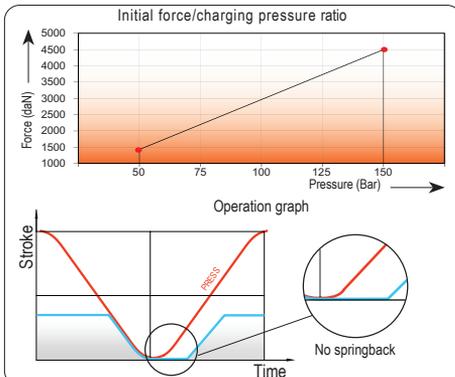
VDI SAFETY



The TPCB 4500 model is also available equipped with RMF-D1. (TPCB 4500x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCB 4500x12	12	140	128	4500 ±5% (20°C)	4590	4630	150 (20°C)
TPCB 4500x25	25	166	141		4815	4890	
TPCB 4500x38	38	192	154		4965	5060	
TPCB 4500x50	50	216	166		5065	5175	
TPCB 4500x63	63	242	179		5140	5265	
TPCB 4500x80	80	276	196		5220	5355	
TPCB 4500x100	100	316	216		5285	5435	
TPCB 4500x125	125	366	241		5345	5505	



Pressure medium Nitrogen (N₂) / Oil

Max. charging pressure	150 Bar
Min. charging pressure	50 Bar
Rod seal area	28,27 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	15 - 22 m/min
Max. recommended strokes/min	8 - 20* spm



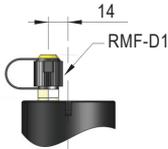
Required information

Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

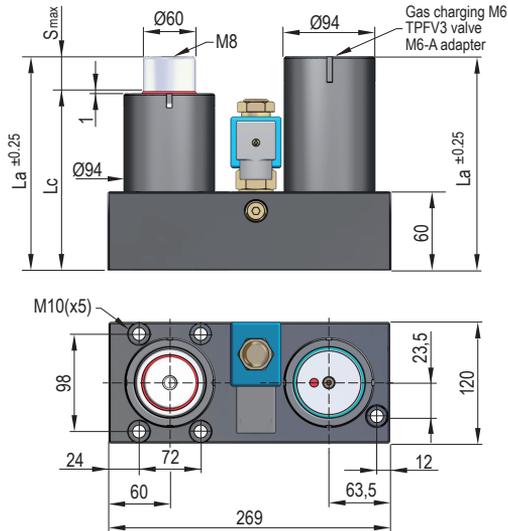
* Maximum rate will depend on working parameters



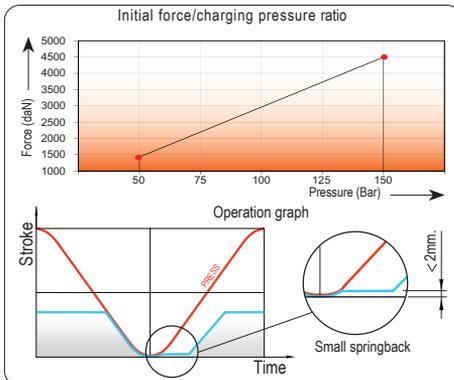
VDI SAFETY



The TPCBS 4500 model is also available equipped with RMF-D1. (TPCBS 4500x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCBS 4500x12	12	140	128	4500 ±5% (20°C)	4590	4630	150 (20°C)
TPCBS 4500x25	25	166	141		4815	4890	
TPCBS 4500x38	38	192	154		4965	5060	
TPCBS 4500x50	50	216	166		5065	5175	
TPCBS 4500x63	63	242	179		5140	5265	
TPCBS 4500x80	80	276	196		5220	5355	
TPCBS 4500x100	100	316	216		5285	5435	
TPCBS 4500x125	125	366	241		5345	5505	

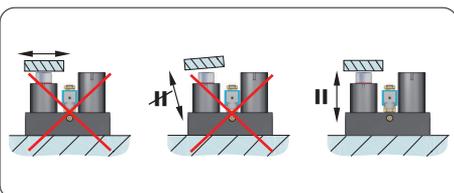


Pressure medium	Nitrogen (N ₂) / Oil
Max. charging pressure	150 Bar
Min. charging pressure	50 Bar
Rod seal area	28,27 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	25 - 30 m/min
Max. recommended strokes/min	8 - 20* spm



Required information	
Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

* Maximum rate will depend on working parameters



STOP CYLINDER

TPSR

TPSR5

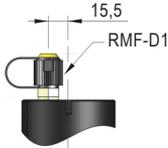
TPNS

TPHT

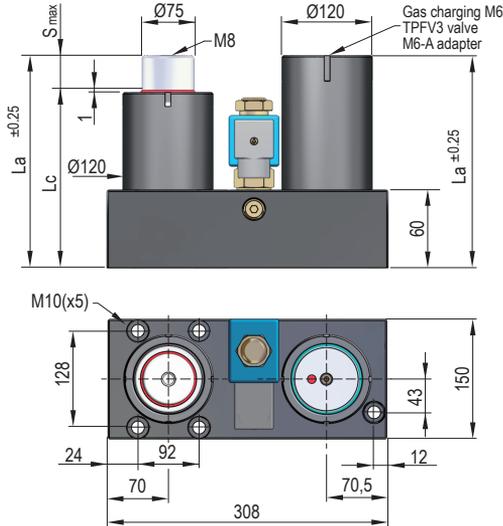




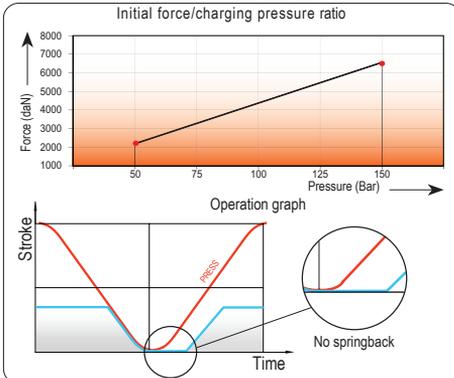
VDI SAFETY



The TPCB 6500 model is also available equipped with RMF-D1. (TPCB 6500x...C-Linked)



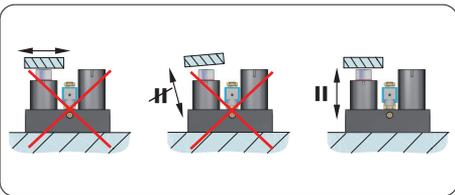
Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCB 6500x12	12	152	140	6500 ±5% (20°C)	7125	7185	150 (20°C)
TPCB 6500x25	25	178	153		7465	7570	
TPCB 6500x38	38	204	166		7690	7830	
TPCB 6500x50	50	228	178		7845	8010	
TPCB 6500x63	63	254	191		7970	8155	
TPCB 6500x80	80	288	208		8095	8305	
TPCB 6500x100	100	328	228		8205	8430	
TPCB 6500x125	125	378	253		8305	8545	



Pressure medium	Nitrogen (N ₂) / Oil
Max. charging pressure	150 Bar
Min. charging pressure	50 Bar
Rod seal area	44,18 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	10 - 18 m/min
Max. recommended strokes/min	8 - 20* spm

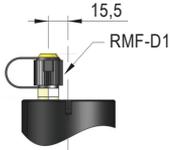
Required information	
Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

* Maximum rate will depend on working parameters

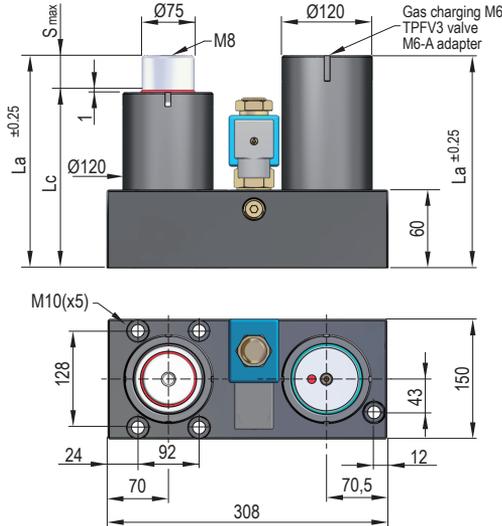




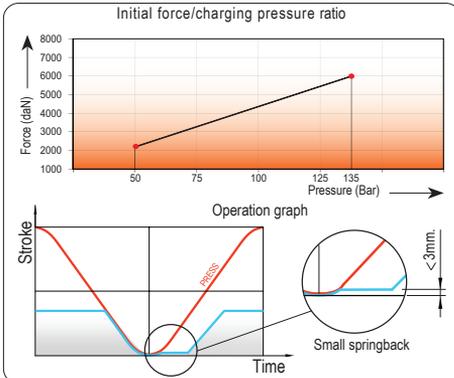
VDI SAFETY



The TPCBS 6000 model is also available equipped with RMF-D1. (TPCBS 6000x...C-Linked)



Code	Smax mm	La mm	Lc mm	Fa daN	90% F daN	100% Fc daN	P Bar
TPCBS 6000x12	12	152	140	6000 ±5% (20°C)	3410	6465	135 (20°C)
TPCBS 6000x25	25	178	153		6715	6810	
TPCBS 6000x38	38	204	166		6920	7050	
TPCBS 6000x50	50	228	178		7060	7210	
TPCBS 6000x63	63	254	191		7175	7340	
TPCBS 6000x80	80	288	208		7290	7470	
TPCBS 6000x100	100	328	228		7385	7585	
TPCBS 6000x125	125	378	253		7475	7690	



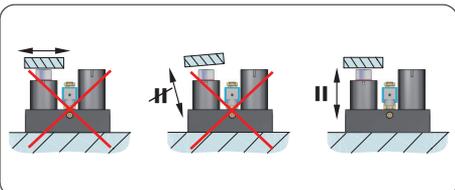
Pressure medium: **Nitrogen (N₂) / Oil**

Max. charging pressure	135 Bar
Min. charging pressure	50 Bar
Rod seal area	44,18 cm ²
Operating temperature	0°C - 60°C
Force increase by temperature	0,33 %/°C
Max. stem speed	20 - 30 m/min
Max. recommended strokes/min	8 - 20* spm

Required information

Working stroke	(mm)
Press speed	(m/min)
Maximum production rate	(spm)
Working pressure	(bar)

* Maximum rate will depend on working parameters



STOP CYLINDER

TPSR

TPSRs

TPNS

TPHT





i

MICRO

TITAN

TPH

TPS

TPSP

TPF

TPK

TPC

TPR

TPB

TPHC

TPA

TPG

TPCT

TPSL

STOP
CYLINDER

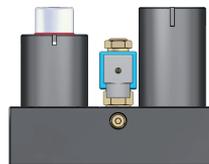
STOP
CYLINDER

Type 1 Standard Version

Cylinders applied in working environments with low pollution risk

How to order

TPCB 1500	x 50	- E24	- C	- 1
Model	Stroke	Hydraulic valve	C- Linked system NC - Self contained	Standard Version

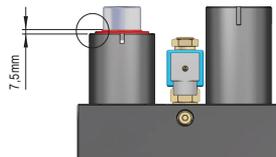
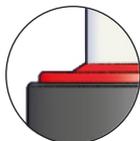


Type 2 Shield-Scraper Version

Cylinders applied in working environments with presence of liquid or solid pollution at medium incidence

How to order

TPCBS 1500	x 50	- E24	- C	- 2
Model	Stroke	Hydraulic valve	C- Linked system NC - Self contained	Shield-Scraper Version



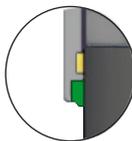
Type 3 Sealing Cap Version

Please contact technical department for dimensions of protection cap

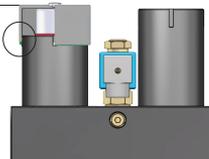
Cylinders applied in working environments with high incidence of liquid and solid pollution

How to order

TPCBS 1500	x 50	- E24	- C	- 3
Model	Stroke	Hydraulic valve	C- Linked system NC - Self contained	Sealing Cap Version



La = 11mm - (TPCB 1500/2400)
La = 11mm - (TPCBS 1500/2400)



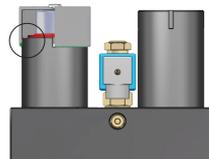
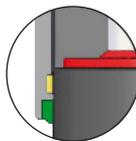
Type 4 Shield-Scraper + Sealing Cap Version

Please contact technical department for dimensions of protection cap

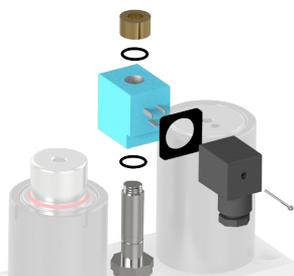
Cylinders applied in extremely polluted or corrosive working environments

How to order

TPCB 1500	x 50	- E24	- C	- 4
Model	Stroke	Hydraulic valve	C- Linked system NC - Self contained	Shield-Scraper Sealing Cap Version



Electrovalve detail



Hydraulic valve - Technical information

Hydraulic valve	E 24	E 110	E 220
Supply voltage	24 VDC	110 VAC	220 VAC
Power consumption	21w	21w	21w
Protection class	IP65	IP65	IP65