

# TPT-C

2+2 independent jaw movement  
TONGUE & GROOVE

High precision 2+2 jaw power chuck with self-centering independent jaw movement Ø 210 - 400 mm

- Closed center
- Tongue & groove

## Application/customer benefits

- Clamping of rectangular and square workpieces, self-centering in two axes

## Technical features

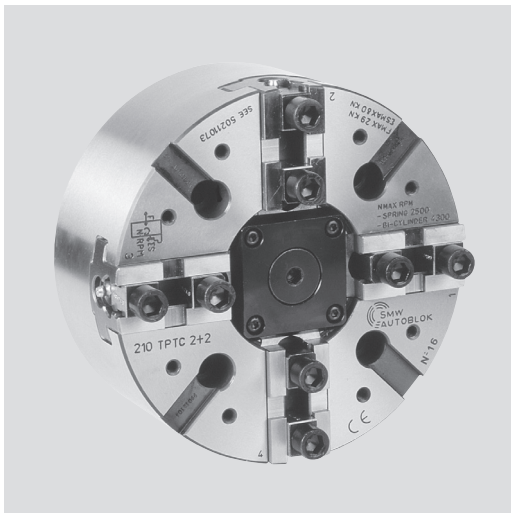
- 2+2 jaw chuck with 2 independent self-centering jaw drives (two wedge drives)
- Jaw No. 1 + 3 (clamping jaws): power operated
- Jaw No. 2 + 4 (centering jaws): spring operated or optionally power operated\*
- Chuck body and internal parts are case hardened for high precision and long life

## Standard equipment\*

2+2 jaw chuck  
Mounting bolts

## Ordering example

Power chuck TPT-C 250 A8  
or  
Power chuck TPT-C 400-Z



### A One wedge drive

- Operated by standard closed center cylinders.
- Jaws 2 and 4 are spring operated to center the component in one axis.
- Jaws 1 and 3 are power operated by the cylinder to center the component on the second axis and to apply the gripping force to drive the component.
- Only for external clamping (on request internal clamping).
- See specific draw pull, gripping force and maximum speed in the technical data table below.

\*Note: The chucks are always delivered as „one wedge drive“ version: To use them as „two independent wedge drives“ version, just remove the internal spring assembly according to instruction manual

### B Two independent wedge drives\*

- Operated by independent double piston cylinders.
- Jaws 2 and 4 are power operated (using the small cylinder) to center the component in one axis.
- Jaws 1 and 3 are also power operated (using the large cylinder) to center the component on the second axis and to apply the gripping force to drive the component.
- Since both pair of jaws are power operated the chuck can reach higher speeds.
- See specific draw pull, gripping force and maximum speed in the technical data table below.

## Technical data

SMW-AUTOBLOK Type		TPT-C 210	TPT-C 250	TPT-C 315	TPT-C 400
Number of jaws		2+2	2+2	2+2	2+2
Radial jaw stroke	mm	4	5	5	7
Wedge stroke	mm	19	24	24	33
Weight (plain back without top jaws)	kg	21	32	48	102
Moment of inertia	kg·m <sup>2</sup>	0.12	0.27	0.64	1.95
Id. No. TPT-C (center mounting)		77992105	77992513	77993121	77994013

### A ONE wedge drive

SMW-AUTOBLOK Type		TPT-C 210	TPT-C 250	TPT-C 315	TPT-C 400
Number of jaws		2+2	2+2	2+2	2+2
Max. draw pull (clamping wedge, jaw 1 + 3)	kN	29	39	45	60
Max. gripping force jaw 1 + 3** (power operated)	kN	72	98	115	150
Max. centering force jaw 2 + 4 (spring operated)	kN	11	15	15	24
Max. speed	r.p.m.	2500	2400	2000	1500
Recommended actuating cylinders	Type	SIN-S 125	SIN-S 125	SIN-S 150	SIN-S 150

### B TWO independent wedge drives

SMW-AUTOBLOK Type		TPT-C 210	TPT-C 250	TPT-C 315	TPT-C 400
Number of jaws		2+2	2+2	2+2	2+2
Max. draw pull (clamping wedge, jaw 1 + 3)	kN	25	34	40	50
Max. draw pull (centering wedge, jaw 2 + 4)	kN	19	25	30	35
Max. gripping force jaw 1 + 3** (power operated)	kN	72	98	115	150
Max. centering force jaw 2 + 4 (power operated)	kN	55	72	85	100
Max. speed	r.p.m.	4300	3400	2700	2000
Recommended actuating cylinders***	Type	DCE 64 / 64	DCE 64 / 64	DCE 64 / 64	DCE 64 / 64

\*\* For internal clamping reduce the draw pull by 30%.

\*\*\* SMW-AUTOBLOK 340: Technical details of DCE cylinders see general catalog.



SMW-AUTOBLOK  
472

SMW-AUTOBLOK  
466

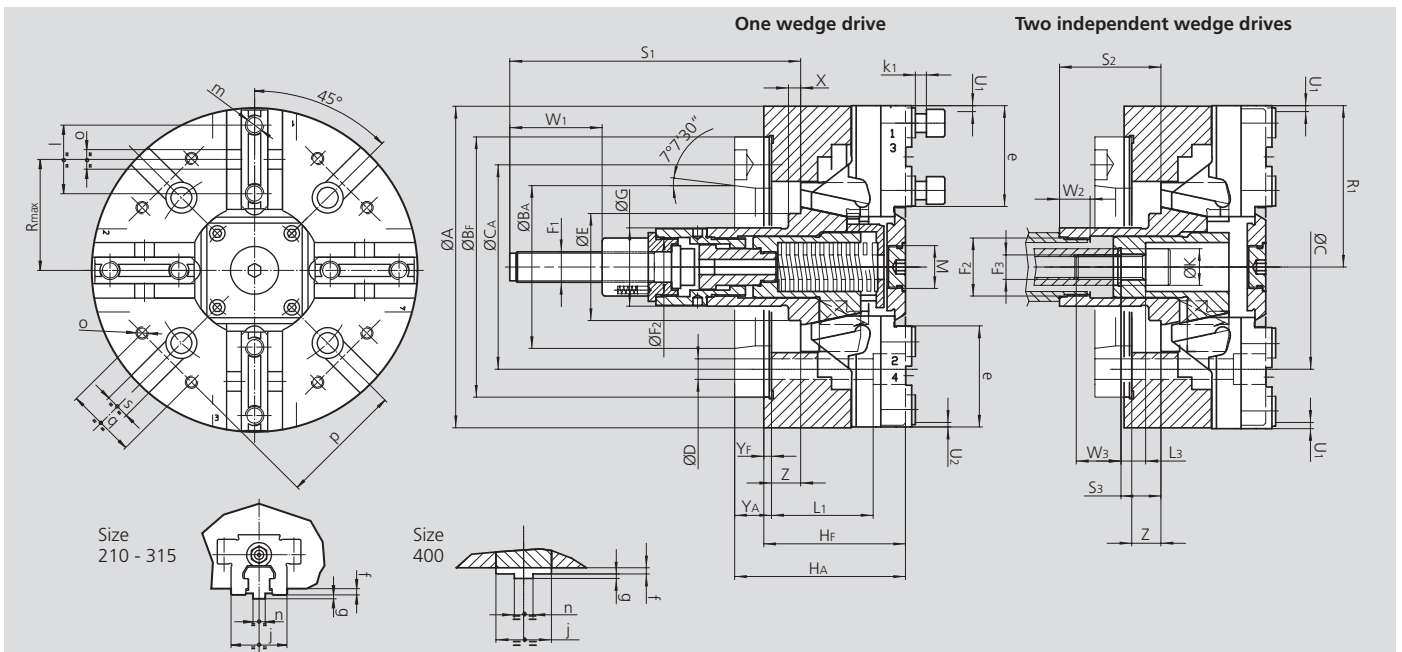
SMW-AUTOBLOK  
327

# High precision 2+2 jaw power chuck with self-centering independent jaw movement $\varnothing$ 210 - 400 mm

# TPT-C

- Closed center
- Tongue & groove

2+2 independent jaw movement  
TONGUE & GROOVE



Subject to technical changes.  
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type			TPT-C 210		TPT-C 250			TPT-C 315			TPT-C 400	
Mounting			Z170	A6	Z220	A6*	A8	Z300	A8*	A11	Z300	A11
	<b>A</b>	mm	210		254			315			390	
	<b>BF/BA H6</b>	mm	170	106.375	220	106.375	139.719	300	139.719	196.869	300	196.869
	<b>C</b>	mm	133.4		171.4			235			235	
	<b>CA</b>	mm	-	-	-	133.4	-	-	171.4	-	-	-
	<b>D</b>	mm	13.5		17			21			21	
	<b>E</b>	mm	70		88			110			98	
	<b>F1</b>	mm	M20		M24			M24			M24	
	<b>F2</b>	mm	M38 x 1.5		M56 x 2			M56 x 2			M56 x 2	
	<b>F3</b>	mm	M16		M20			M20			M20	
	<b>G</b>	mm	51		61			61			70	
Chuck height	<b>HF/HA</b>	mm	92	111	105	124	127	111	127	136	116	140
	<b>K H8</b>	mm	24		30			30			35	
	<b>L1</b>	mm	66		59			33			54	
	<b>L3</b>	mm	11		9			11			11	
	<b>M</b>	mm	M28 x 1.5		M28 x 1.5			M28 x 1.5			M24 x 1	
	<b>R1</b>	mm	105.5		127.5			158			196	
	<b>Rmax</b>	mm	72		88			105			133.5	
	<b>S1</b>	mm	189		203			201			218	
	<b>S2</b>	mm	61		71			69			86	
	<b>S3</b>	mm	21		33			31			45.5	
Jaw stroke (power 1 + 3)	<b>U1</b>	mm	4		5			5			7	
Jaw stroke (power / spring 2 + 4)	<b>U2</b>	mm	3		4			4			5.4	
	<b>W1</b>	mm	60		60			60			60	
	<b>W2</b>	mm	20		20			20			20	
	<b>W3</b>	mm	29		31			29			29	
	<b>X</b>	mm	8		8			10			10	
	<b>Yf/YA</b>	mm	5	24	5	24	27	5	30	30	6	30
Wedge stroke	<b>Z</b>	mm	19		24			24			33	
	<b>e</b>	mm	66		77.5			93			116	
	<b>f</b>	mm	4		4			4			7	
	<b>g</b>	mm	2.5		3			3			3	
	<b>j</b>	mm	36		45			45			62	
	<b>k1</b>	mm	11		12			12			14	
	<b>l</b>	mm	44.4		54			54			76.2	
	<b>m</b>	mm	M12		M16			M16			M20	
	<b>n h8</b>	mm	7.94		12.7			12.7			12.7	
	<b>o H7</b>	mm	12.68		19.03			19.03			19.03	
	<b>p</b>	mm	80		102			100			150	
	<b>q</b>	mm	45		60			60			80	
	<b>r</b>	mm	M8		M10			M10			M12	
	<b>s H8</b>	mm	16		16			20			20	
	<b>t</b>	mm	5		5			5			5	

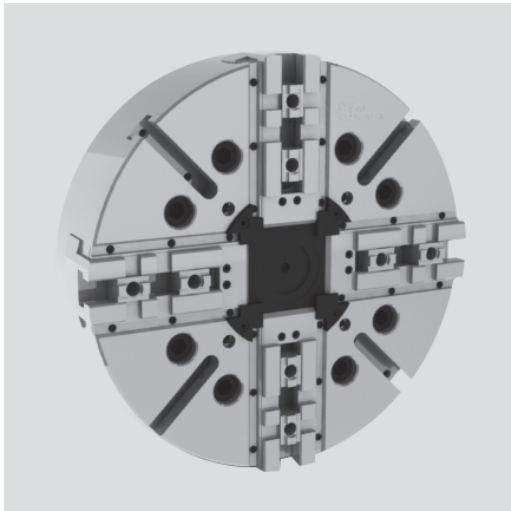
\* Indirect mounting.

# TPT-C

2+2 independent jaw movement  
TONGUE & GROOVE

High precision 2+2 jaw power chuck with self-centering independent jaw movement Ø 500 - 800 mm

- Closed center
- Tongue & groove



## Application/customer benefits

- Clamping of rectangular and square workpieces, self-centering in two axes

## Technical features

- 2+2 jaw chuck with 2 independent self-centering jaw drives (two wedge drives)
- Jaw No. 1 + 3 (clamping jaws): power operated
- Jaw No. 2 + 4 (centering jaws): spring operated or optionally power operated\*
- High quality cast iron body for lightweight and durability
- Protection from contamination with seals along the master jaw profiles

## Standard equipment\*

2+2 jaw chuck  
1 set of T-nuts and bolts  
1 set of soft top jaws  
Mounting bolts

## Ordering example

Power chuck TPT-C 500 2+2 Z380  
or  
Power chuck TPT-C 800 2+2 A15

## A One wedge drive

- Operated by standard closed center cylinders.
- Jaws 2 and 4 are spring operated to center the component in one axis.
- Jaws 1 and 3 are power operated by the cylinder to center the component on the second axis and to apply the gripping force to drive the component.
- For external clamping only (on request internal clamping).
- See specific draw pull, gripping force and maximum speed in the technical data table below.

## B Two independent wedge drives\*

- Operated by independent double piston cylinders. Jaws 2 and 4 are power operated (using the small cylinder) to center the component in one axis.
- Jaws 1 and 3 are also power operated (using the large cylinder) to center the component on the second axis and to apply the gripping force to drive the component.
- Since both pair of jaws are power operated the chuck can reach higher speeds.
- See specific draw pull, gripping force and maximum speed in the technical data table below.

\*Note: The chucks are always delivered as „one wedge drive“ version: To use them as „two independent wedge drives“ version, just remove the internal „spring assembly“ according to instruction manual.

## Technical data

SMW-AUTOBLOK Type		TPT-C 500	TPT-C 630	TPT-C 800
Number of jaws		2+2	2+2	2+2
Radial jaw stroke	mm	8.5	10	10
Wedge stroke	mm	32	38	38
Weight (plain back without top jaws)	kg	180	325	550
Moment of inertia	kg·m <sup>2</sup>	6	16	44
Id. No. TPT-C (center mounting)		77995007	77996307	77998007

## A ONE wedge drive

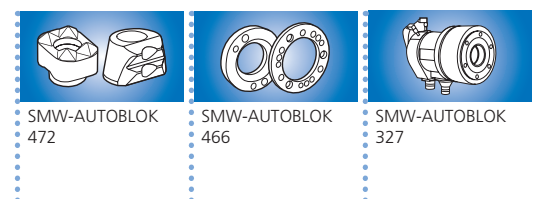
SMW-AUTOBLOK Type		TPT-C 500	TPT-C 630	TPT-C 800
Number of jaws		2+2	2+2	2+2
Max. draw pull** (clamping wedge, jaw 1 + 3)	kN	80	80	80
Max. gripping force jaw 1 + 3 (power operated)	kN	160	160	160
Max. centering force jaw 2 + 4 (spring operated)	kN	30	30	30
Max. speed	r.p.m.	800	630	500
Recommended actuating cylinders	Type	SIN-S 175-200	SIN-S 175-200	SIN-S 175-200

## B TWO independent wedge drives

SMW-AUTOBLOK Type		TPT-C 500	TPT-C 630	TPT-C 800
Number of jaws		2+2	2+2	2+2
Max. draw pull** (clamping wedge, jaw 1 + 3)	kN	67	67	67
Max. draw pull** (centering wedge, jaw 2 + 4)	kN	50	50	50
Max. gripping force jaw 1 + 3 (power operated)	kN	160	160	160
Max. centering force jaw 2 + 4 (power operated)	kN	120	120	120
Max. speed	r.p.m.	1200	850	700
Recommended actuating cylinders***	Type	DCE 140 / 140	DCE 140 / 140	DCE 140 / 140

\*\* For internal clamping reduce the draw pull by 30%.

\*\*\* SMW-AUTOBLOK 340: Technical details of DCE cylinders see general catalog.

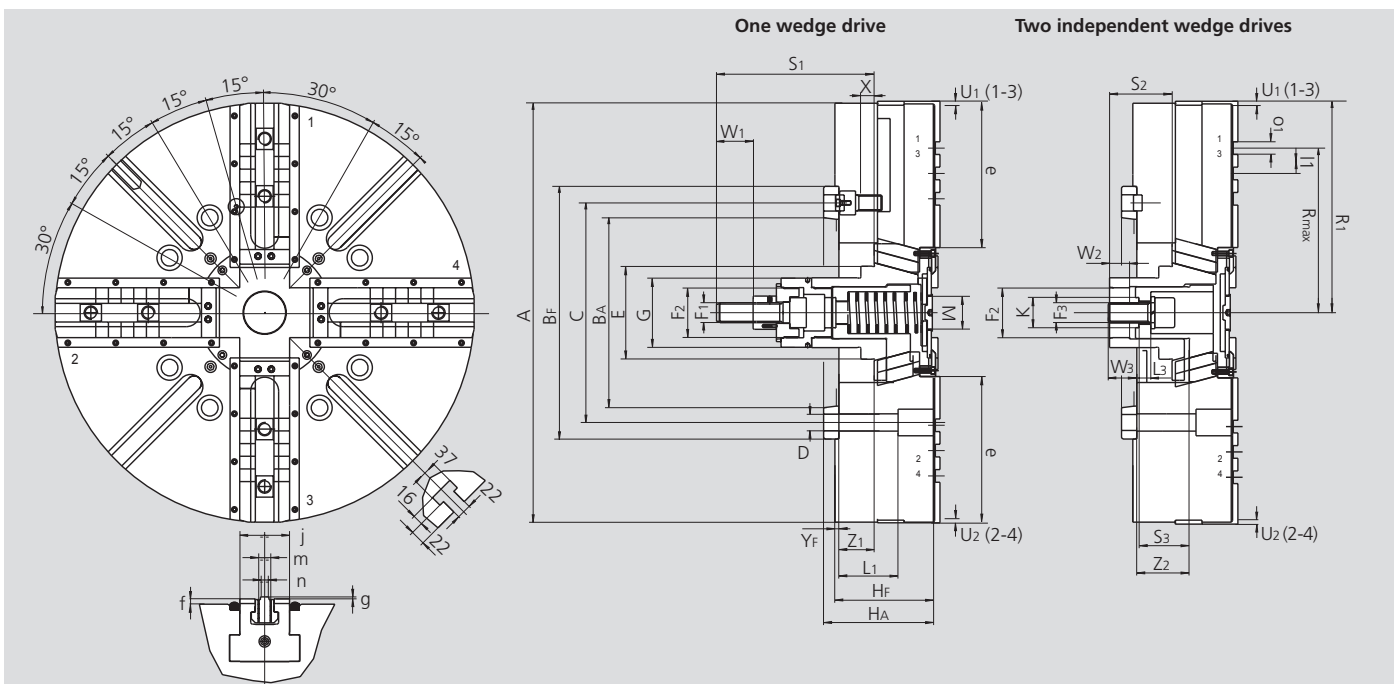


# High precision 2+2 jaw power chuck with self-centering independent jaw movement Ø 500 - 800 mm

# TPT-C

- Closed center
- Tongue & groove

2+2 independent jaw movement  
TONGUE & GROOVE



Subject to technical changes.  
For more detailed information please ask our customer service.

SMW-AUTOBLOK Type	TPT-C 500		TPT-C 630		TPT-C 800		
	Z380	A15	Z380	A15	Z380	A15	
<b>Mounting</b>							
<b>A</b>	mm	510	630	800			
<b>Bf/BA H6</b>	mm	380	285.775	380	285.775	380	285.775
<b>C</b>	mm	330.2	330.2	330.2	330.2		
<b>D</b>	mm	25	25	25	25		
<b>E</b>	mm	140	140	140	140		
<b>F1</b>	mm	M30	M30	M30	M30		
<b>F2</b>	mm	M75 x 2	M75 x 2	M75 x 2	M75 x 2		
<b>F3</b>	mm	M30	M30	M30	M30		
<b>G</b>	mm	104	104	104	104		
<b>Chuck height</b>							
<b>Hf/HA</b>	mm	130	147	150	167	150	167
<b>K</b>	mm	45	45	45	45		
<b>L1</b>	mm	89	89	89	89		
<b>L3</b>	mm	18	18	18	18		
<b>M</b>	mm	M52 x 1.5	M52 x 1.5	M52 x 1.5	M52 x 1.5		
<b>R1</b>	mm	263	318	318	405		
<b>Rmax</b>	mm	209.5	247.5	247.5	349		
<b>S1</b>	mm	237	237	237	237		
<b>S2</b>	mm	94	94	94	94		
<b>S3</b>	mm	76	76	76	76		
<b>Jaw stroke (power 1 + 3)</b>							
<b>U1</b>	mm	8.5	10	10	10		
<b>Jaw stroke (power / spring 2 + 4)</b>							
<b>U2</b>	mm	6.5	8	8	8		
<b>W1</b>	mm	55	55	55	55		
<b>W2</b>	mm	30	30	30	30		
<b>W3</b>	mm	46	46	46	46		
<b>X</b>	mm	20	20	20	20		
<b>YF/YA</b>	mm	6 / 23	6 / 23	6 / 23	6 / 23		
<b>Wedge stroke 1 max. /min.</b>							
<b>Z1</b>	mm	33 / 1	53 / 15	53 / 15	53 / 15		
<b>Wedge stroke 2 max. / min.</b>							
<b>Z2</b>	mm	59 / 27	79 / 41	79 / 41	79 / 41		
<b>e</b>	mm	165	220	220	307		
<b>f</b>	mm	8	8	8	8		
<b>g</b>	mm	3	3	3	3		
<b>j</b>	mm	75	75	75	75		
<b>l1</b>	mm	38.1	38.1	38.1	38.1		
<b>m</b>	mm	20	20	20	20		
<b>n</b>	mm	12.7	12.7	12.7	12.7		
<b>o1</b>	mm	19.03	19.03	19.03	19.03		