

# TX-RV

Self centering  
Rigid jaws

## Quick jaw change, high precision pull-down chucks

Ø 170 - 530 mm

- active pull-down
- quick jaw change (internal/external)
- 3 jaws



### Application/customer benefits

- Clamping of workpieces with highest demand for **parallelism**
- Highest repeatability
- **Highest productivity** with long maintenance intervals
- For small-medium batches production, due to the quick jaw change
- All chucks are the same, the same jaws can be used on all chucks of the same size
- Constant grip force and long lifetime ensure **constant quality of workpieces**

### Technical features

- 3-jaw-design
- active pull-down
- centrifugal force compensation
- quick jaw change
- Highest repeatability (similar to Diaphragm chucks)

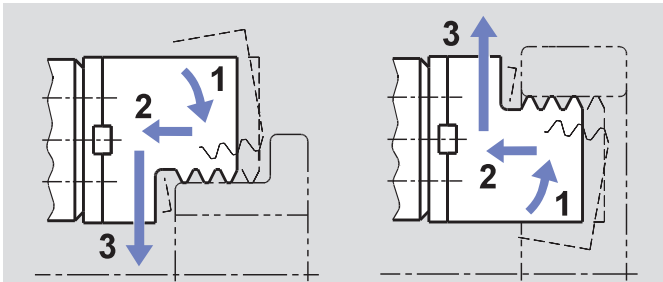
- central bore for coolant and/or air
- permanent oil lubrication
- **proofline® chucks** = fully sealed – low maintenance

### Standard equipment

3-jaw-chuck  
Mounting bolts

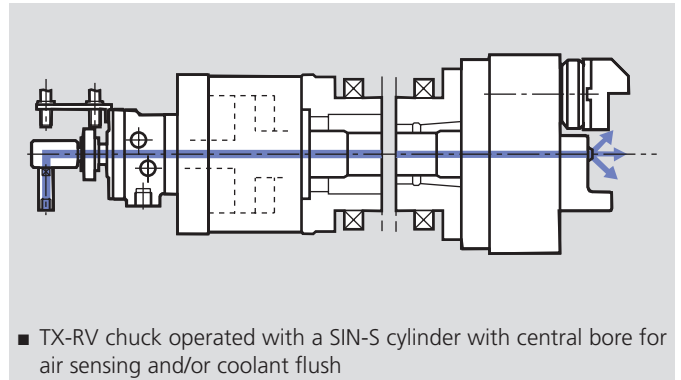
### Ordering example

3-jaw-chuck TX-RV 530/A11

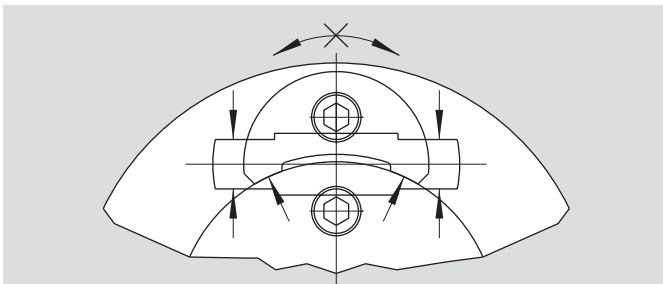


Principle of function:

- 1 pre-clamping - 2 active pull-down - 3 clamping
- For O.D. and I.D. clamping



- TX-RV chuck operated with a SIN-S cylinder with central bore for air sensing and/or coolant flush



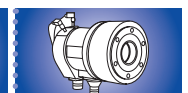
**TX-RV:** High resistance to the radial torque, ideal for turning and milling application and guarantee of high precision, durability and constant process results

## Technical data

SMW-AUTOBLOK Type		TX-RV 170	TX-RV 210	TX-RV 250	TX-RV 315	TX-RV 400	TX-RV 530
Angular jaw stroke	deg.	5.2°	5.2°	4.9°	4.9°	4.7°	4.7°
Radial jaw stroke at distance h	mm	5.3	6.3	7	7	7.5	7.5
Pull down movement (standard)	mm	0.1	0.1	0.1	0.1	0.2	0.2
Axial piston stroke	mm	21	25	26	26	30	30
Max. draw pull**	kN	18	25	40	40	50	60
Max. gripping force** at distance h	kN	44	60	96	96	120	150
Max. speed*	r.p.m.	5000	4500	3800	3000	2200	1800
Mass (plain back without top jaws)	kg	16	28	42	67	125	248
Moment of inertia	kg·m <sup>2</sup>	0.06	0.17	0.35	0.84	2.3	8.8
Recommended actuating cylinders		SIN-S 85	SIN-S 100	SIN-S 125	SIN-S 125	SIN-S 150	SIN-S 150

\* The above maximum speed is allowed with standard weight/height top jaws and applying the full draw pull only. For more informations please contact SMW-AUTOBLOK.

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



• on request:  
• Tooling Standard  
• Parts Catalog

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# Quick jaw change, high precision pull-down chucks

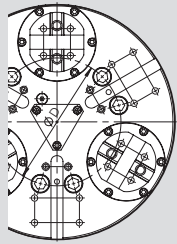
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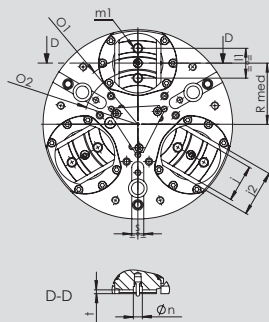
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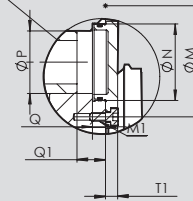
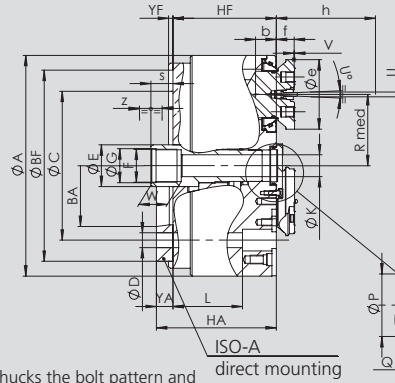
Master jaws in middle stroke position (horizontal)



TX-RV 315



TX-RV 400



View

IMPORTANT: On TX chucks the bolt pattern and the connecting dimensions vary a lot between the chuck sizes. For making adapter parts or any other accessories always request a chuck customer drawing.

Subject to technical changes  
For more detailed information please ask for customer drawing

SMW-AUTOBLOK	Type		TX-RV 170		TX-RV 210		TX-RV 250		TX-RV 315		TX-RV 400		TX-RV 530	
	Mounting		Z140	A5	Z170	A6	Z220	A8	Z220	A8	Z300	A11	Z380	A11
	<b>A</b>	mm	175		212		254		315		390		535	
	<b>Bf/BA</b>	H6 mm	140	82.5	170	106.375	220	139.719	220	139.719	300	196.869	380	285.775
	<b>C</b>	mm	104.8		133.4		171.4		171.4		235		330.2	
	<b>D</b>	mm	11.5		13.5		17		17		21		25	
	<b>E</b>	mm	36		38		48		48		75		75	
	<b>F</b>	mm	M28x1.5		M32 x 1.5		M38 x 1.5		M38 x 1.5		M60 x 1.5		M60 x 1.5	
	<b>G</b>	H8 mm	29		33		39		39		61		61	
	<b>Hf/HA</b>	mm	94	109	112	129	119	138	119	138	144	165	149	172
Through-hole	<b>K</b>	mm	14		18		25		25		52		52	
	<b>L</b>	mm	68		82		80		80		94		97	
	<b>M</b>	mm	36		42		63		63		90		90	
Thread/depth	<b>M1</b>	mm	M5/12		M6/11		M6/14		M6/14		M8/17		M8/17	
	<b>N</b>	H8 mm	28		34		44		44		75		75	
	<b>P</b>	mm	23		28		36		36		65		65	
	<b>Q</b>	mm	6		5.5		7.5		7.5		9		9	
At middle stroke	<b>Q1</b>	mm	13		14		16		16		21		21	
At middle stroke	<b>Rmed</b>	mm	55		64		82		107		130		190	
At middle stroke	<b>S</b>	mm	17		20		25		25		25		20	
	<b>T1</b>	mm	10		7		7		7		15		15	
Radial stroke°	<b>U°</b>	deg.	5.2°		5.2°		4.9°		4.9°		4.7°		4.7°	
Radial stroke (1)	<b>U</b>	mm	5.3		6.3		7		7		7.5		7.5	
Pull-down s/d	<b>V</b>	mm	0.1		0.1		0.1		0.1		0.2		0.2	
	<b>W</b>	mm	25		25		30		30		25		25	
Axial piston stroke	<b>Z</b>	mm	21		25		26		26		30		30	
	<b>e</b>	mm	60		75		80		80		105		105	
	<b>f</b>	mm	17		21		21		21		28		28	
Reference height	<b>h</b>	mm	40		48		58		58		63		63	
	<b>j</b>	mm	35		45		50		50		70		70	
	<b>l1</b>	mm	30		36		40		40		52		52	
Thread/depth	<b>m1</b>	mm	M10/12		M12/15		M12/15		M12/15		M16/18		M16/18	
	<b>n</b>	h8 mm	12		12		12		12		12		12	
	<b>o1</b>	js6 mm	122		142		180		230		276		396	
	<b>O2</b>	js6 mm	98		114		148		198		244		364	
	<b>s</b>	H9 mm	16		16		16		16		-		-	
	<b>t</b>	mm	5		5		5		5		7		7	
	<b>Yf</b>	mm	5		5		5		5		6		6	
	<b>j2</b>	mm	-		56		62		62		85		85	

(1) Calculated at **h** distance from the chuck's face (where normally the clamping takes place)