

# DURO-TA XT

Equipped with extended and easy to assemble guideways the new lightweight DURO-TA XT is convincing with a flexible clamping area for machining large and small workpieces. Weight-reducing by up to 75 % makes maximum utilisation of the machine's potential possible.

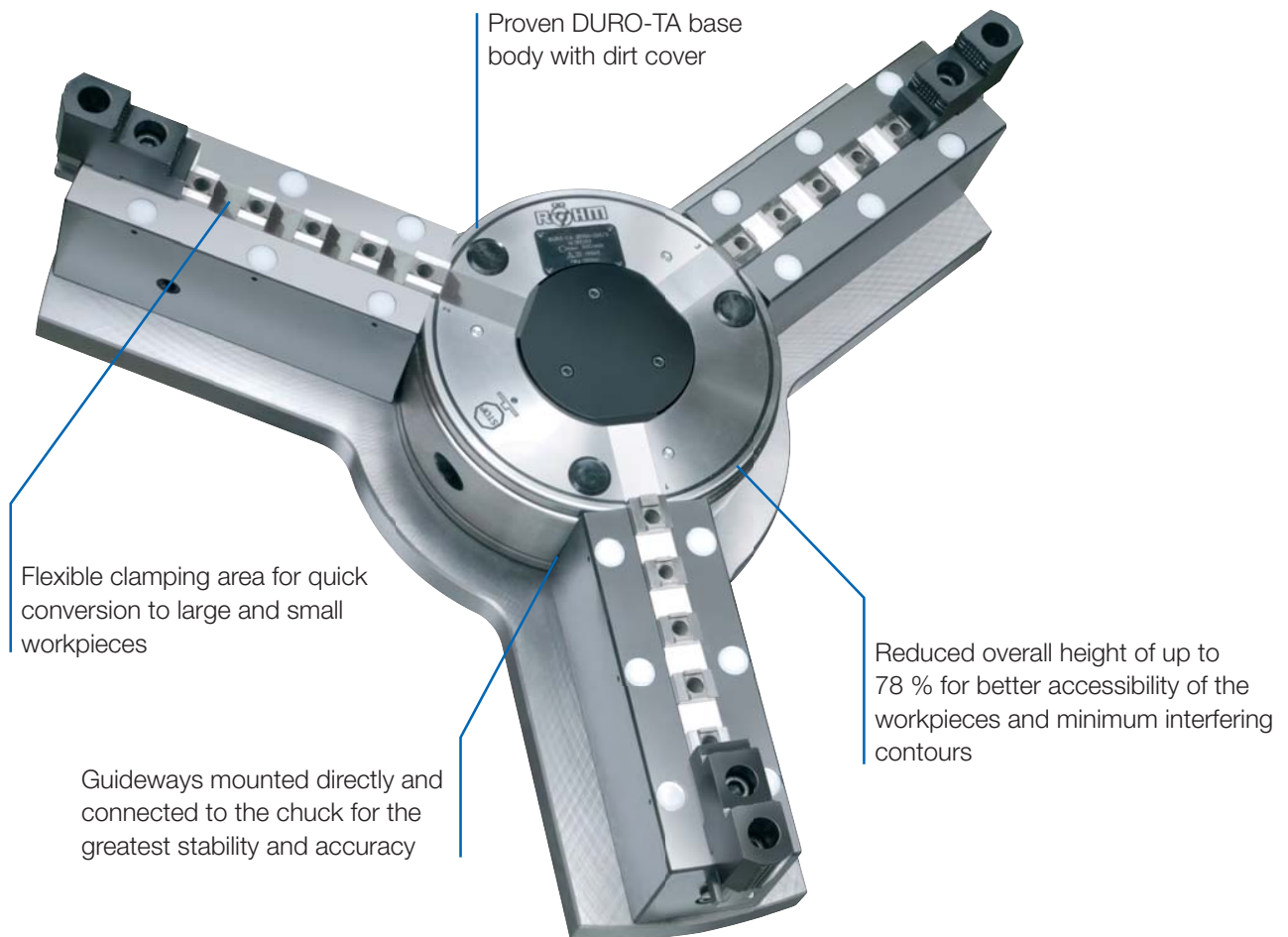
### Guideways

The new DURO-TA XT has an innovative concept for guideways that guarantees flexible and weight-reducing use. In contrast to other large chucks, the DURO-TA XT is up to 75 % lighter and that way makes maximum utilisation of the machine's potential possible and clamping of higher workpiece weights. Through the extended and easy to assemble guideways, the clamping area can be set flexibly and hence converted quickly to large and small workpieces. Through the direct mount on the base body, the guideways guarantee extremely high rigidity, stability and protection against penetration by dirt and dust.

### Principle of operation

Thanks to the tangentially arranged threaded spindle, the force is transferred via a key bar having an internal thread. The key bar moves the drive ring via a slide. Two other slides in the drive ring transfer the forces to the other two key bars. The key bars having an inclined profile engage in the base jaws, thereby guaranteeing exact, centric clamping.

DURO-TA XT Key  
bar chucks



# DURO-TA XT



### APPLICATION

On turning and milling machines.

### TYPE

Key bar chuck (DURO-TA) with removable guideways.

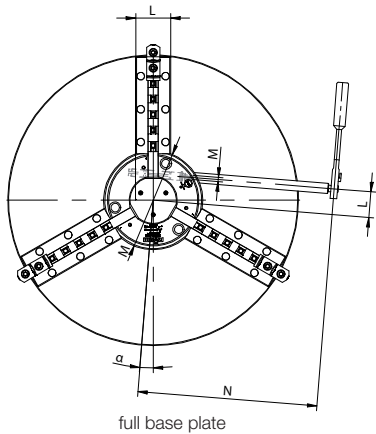
### CUSTOMER BENEFITS

- ⊕ Weight reduction by up to 75 %
- ⊕ Maximum flexibility and faster conversion
- ⊕ Innovative design with minimum interference contour and maximum stability

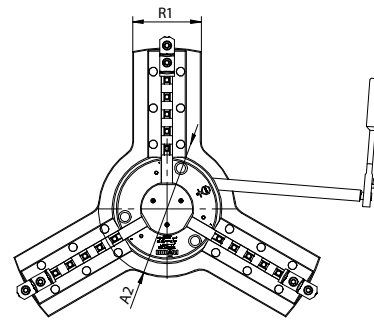
### TECHNICAL FEATURES

- Weight reduction by up to 75 % allows maximum utilization of the machine potential and the clamping of heavier workpieces
- Flexible clamping range thanks to elongated guideways for faster conversion between large and small workpieces
- Easy dismounting of the guideways for clamping smaller workpieces
- Minimum interference contour and better workpiece accessibility thanks to compact design and a reduced design height by up to 78 %
- High stability thanks to direct support of the permanently screwed guideways

Key bar chucks  
DURO-TA XT



full base plate



max. lightweight base plate

A08

### DURO-TA XT key bar chuck, with complete base plate

Item no.	Size	Clamping range external with extended jaws mm	Clamping range external with standard jaws * mm	Interfering contour ** mm	Jaw travel mm	Weight kg	Speed max. min <sup>-1</sup>	Max. Torque Nm	Max. total clamping force kN	Weight reduction compared to a standard chuck %
180312	750 (250)	145-715	8-253	804 / 769	8	183	800	190	185	75
180313	1000 (315)	220-995	12-323	1082 / 1014	10,2	365	570	210	190	68
180314 ▲	1250 (500)	220-1190	40-501	1305	12,5	640	570	320	290	65

### Customized adaptations of the base plate for further weight reduction on the machine table on request

\* By disassembling of the stripping cap and use of standard reversible jaws

\*\* By shortening of the base jaws. Please consider shorter clamping ranges

Further sizes and mountings available on request

# Jaws DURO-TA XT

A28  
One-piece jaw EB, set, diagonally toothing, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
094002	750 (250)	set	114	70	26
094003	1000 (315)	set	130	79	32
094043	1250 (500)	set	167	93	45

Additionally or later purchased, hardened jaws must be ground out in the chuck.  
For jaws which are applied later, send in the chuck.  
Jaws only usable in basic chuck.

Jaws DURO-TA XT

A28  
Unstepped Jaw BL, set, diagonally toothing, unstepped, soft, material 16MnCr5



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
249679	750 (250)	set	118,7	70	26
249680	1000 (315)	set	136,6	79	32
249681	1250 (500)	set	173,6	93	45

Jaws only usable in basic chuck.

A28  
Reversible top jaw UB, set, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
094014	750 (250)	set	92	50	34,4
094015	1000 (315)	set	107	56	35,7
094045	1250 (500)	set	130	72	50,4

Additionally or later purchased, hardened jaws must be ground out in the chuck.  
For jaws which are applied later, send in the chuck.  
Jaws only usable in basic chuck.

A28  
Base jaw GB, set, diagonally toothing, with mounting bolts



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw width
094006	750 (250)	set	110	26
094007	1000 (315)	set	125	32
094044	1250 (500)	set	160	45

Jaws only usable in basic chuck.

C 21  
Draw-down jaws, without clamping inserts, diagonally toothing, 1 piece, without clamping inserts



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
141041	750 (250)	118,7	58,5	26
141043	1000 (315)	136,4	63,9	32
141045	1250 (500)	173,6	73,4	45

Jaws only usable in basic chuck.

C 21  
Draw-down jaws, additional clamping range, for interchangeable clamping inserts, diagonally toothing, 1 piece, without clamping inserts



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
141042	750 (250)	118,7	58,5	26
141044	1000 (315)	136,4	63,9	32
141048	1250 (500)	173,6	73,4	45

Jaws only usable in basic chuck.

# Jaws DURO-TA XT

C 15  
Interchangeable clamping inserts, 1 piece, with claws



Item no.	Chuck Size
141052	750 (250) / 1000 (315)
141055	1250 (500)

Jaws only usable in basic chuck.

C 15  
Interchangeable clamping inserts, 1 piece, with serrated toothing



Item no.	Chuck Size
141053	750 (250) / 1000 (315)
141056	1250 (500)

Jaws only usable in basic chuck.

C 15  
Interchangeable clamping inserts, 1 piece, with heat treatable surface



Item no.	Chuck Size
141054	750 (250) / 1000 (315)
141057	1250 (500)

Jaws only usable in basic chuck.

A28  
Reversible top jaw UB, set, hardened



Id.-Nr.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
180410	750	set	92	50	34,4
180411	1000	set	107	56	35,7
180412	1250	set	130	72	50,4

Additionally or later purchased, hardened jaws must be ground out in the chuck.  
For jaws which are applied later, send in the chuck.

A28  
Unstepped top jaw AB, set, standard design, soft, material 16MnCr5



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
094010	250	set	125	50	30,4
094011	315	set	145	50	34,3
094046	400/500	set	180	73	50,5

C 21  
Reversible claw-type top jaws, standard design, tongue and groove, large clamping range, 1 piece hardened



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137119	400/500	124	62	50

Jaws DURO-TA XT

# Jaws DURO-TA XT

C 21

Reversible claw-type top jaws, standard design, tongue and groove, middle sized clamping range, 1 piece, hardened



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137109	250	72	55	34
137115	315	86	62	34
137121	400/500	100	62	50

C 21

Reversible claw-type top jaws, standard design, tongue and groove, small clamping range, 1 piece, hardened

Jaws DURO-TA XT



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137108	250	90	55	34
137114	315	100	62	34
137120	400/500	124	62	50

C 21

Reversible claw-type top jaws, large design, tongue and groove, small clamping range, 1 piece, hardened



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137110	250	80	55	50
137116	315	93	62	50

C 21

Reversible claw-type top jaws, large design, tongue and groove, middle sized clamping range, 1 piece, hardened



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137112	250	72	55	50
137118	315	86	62	50

C 21

Reversible claw-type top jaws, large design, tongue and groove, large clamping range, 1 piece, hardened



Item no.	Chuck Size	Jaw length	Jaw height	Jaw width
137111	250	90	55	50
137117	315	106	62	50

# Accessories DURO-TA XT

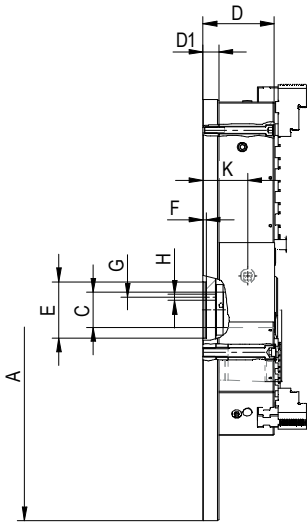
C15

Special grease F80 for lathe chucks  
for lubrication and conservation of chucking power



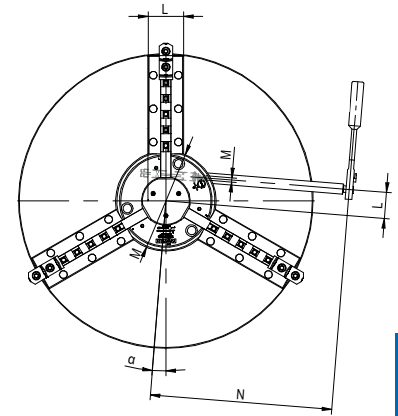
Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

# Technical data DURO-TA XT

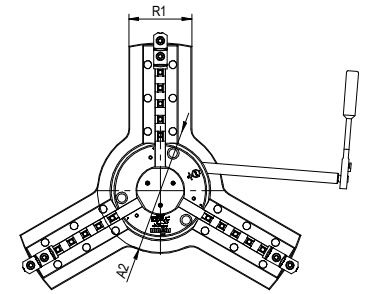


Chuck size A		750	1000	1250
Outer diameter Chuck	A1	256	322	507
Outer diameter Base plate	A2	320	400	590
Jaw movement	B	8	10,2	12,5
Bore 1)				
	C	62	87	162
	D	127	152	160
	D <sup>1</sup>	28	34	35
	E <sup>H6</sup>	100	100	100
	F	6	6	6
	G	45	45	45
	H	11	11	11
	K	79,5	98,0	97,5
	L	66,5	86	152,5
	M	SW14	SW17	SW19
	N	464	565	724
	R	90	100	130
	R1	160	180	210
	S	370	495	615
Moment of inertia GD2 2)	kgm <sup>2</sup>	10,52	37,92	98,70
Moment of inertia GD2 2) 3)	kgm <sup>2</sup>	5,66	18,10	48,93
	$\alpha$	4,6°	4,6°	4,5°
approx. kg	kg	183	365	640
approx. kg 3)	kg	127	233	436

- 1) With dirt cover
- 2) The moment of inertia was measured with base jaws but without top jaws
- 3) With max. lightweight base plate



full base plate



max. lightweight base plate

Technical data DURO-TA XT

### Max. permissible speed

The maximum permissible speed has been fixed so that 1/3 of the gripping force is still available as residual gripping force if the maximum gripping is applied and the chuck is fitted with its heaviest jaws. The jaws may not project beyond the outside diameter of the chuck. The chuck must be in perfect condition. The specification DIN 6386 Part 1 shall be observed.

Chuck size		750	1000	1250
Max. speed	min <sup>-1</sup>	800	570	450

### Gripping force

The gripping force is the sum total of all jaw forces acting radially on the stationary workpiece. The specified gripping forces are standard values.

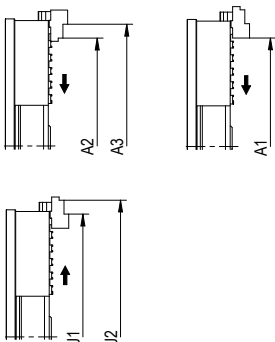
They apply to chucks in a perfect condition which have been lubricated with RÖHM grease F79 and F80.

Chuck size		750	1000	1250
Torque applied on key 1)	Nm	70	80	100
Total gripping force 1)	kN	66	80	102
Torque applied on key	Nm	190	210	320
Max. total gripping force	kN	185	240	290

1) Maintaining the accuracy

At this torque the clamping jaws have been ground at the factory, for testing the chuck must be clamped with this torque

### Chuck capacities of jaw steps



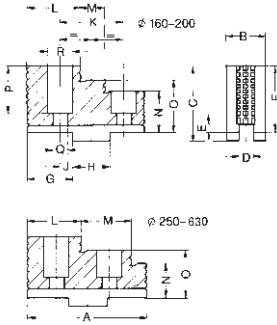
Chuck size		750	1000	1250
External chucking	Jaw position	A1	144-618	215-864
		A2	144-638	330-890
		A3	224-719	223-995
Internal chucking	J1	227-700	298-946	
	J2	307-780	404-1052	
max. interfering contour		808/**773	1086/**1018	1309

\*\* By shortening of the base jaws. Please consider shorter clamping ranges.

# Jaw dimensions DURO-TA XT

Reversible top jaw UB, completely hardened, cross tenon ground, jaw steps not ground

Jaws only usable in basic chuck.

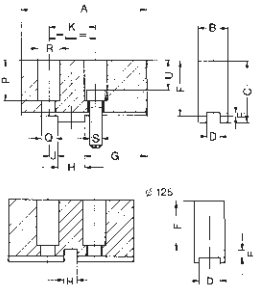


Chuck size	750	1000	1250
A	92	107	130
B	34,4	35,7	50,4
C	55	62	79
D	12	12	18
E	3,5	3,5	4,5
F	50	56	72
G	30	35,5	41,4
H	20	26	30
J	10	14	15
K	40	54	60
L	41	40	51
M	40,5	54	71
N	22	26	32
O	36	41	52
P	39	40	57
Q	14	14	18
R	20	20	26
T <sup>1)</sup>	57	63,6	80,6
Jaw approx. kg	0,800	1,135	2,535

1) Dimension marked on base jaw

Jaw dimensions DURO-TA XT

Unstepped soft top jaw AB, for turning out special chucking diameters

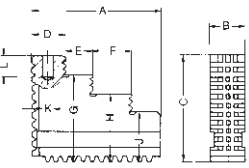


Dimensions for extendend design

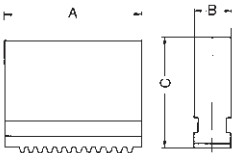
Chuck size	750		1000		1250
	A	125	<b>125</b>	145	<b>145</b>
B	30,4	<b>50,5</b>	34,3	<b>50,5</b>	50,5
C	55	<b>80</b>	56	<b>80</b>	80
D	12	<b>12</b>	12	<b>12</b>	18
E	3,5	<b>3,5</b>	3,5	<b>3,5</b>	4,5
F	50	<b>75</b>	50	<b>74</b>	73
G	70	<b>70</b>	74	<b>74</b>	100
H	20	<b>20</b>	26	<b>26</b>	30
J	10	<b>10</b>	14	<b>14</b>	15
K	40	<b>40</b>	54	<b>54</b>	60
P	39	<b>54</b>	34	<b>48</b>	58
Q	14	<b>14</b>	14	<b>14</b>	18
R	20	<b>20</b>	20	<b>20</b>	26
S	M12x1,5	<b>M12x1,5</b>	M12x1,5	<b>M12x1,5</b>	M16x1,5
T <sup>1)</sup>	57	<b>72</b>	57,6	<b>71,6</b>	81,6
U	27	<b>42</b>	22	<b>36</b>	42
Jaw approx. kg	1,500	<b>3,700</b>	2,265	<b>4,800</b>	4,500

1) Dimension marked on base jaw

Reversible one-piece jaw EB, hardened and ground, jaw steps not ground  
Jaws only usable in basic chuck.



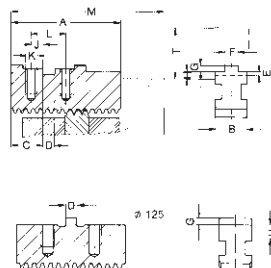
Blockbacks BL, ungestuft, ungehärtet, Verzahnung und Führung gehärtet und geschliffen. Jaws only usable in basic chuck.



Chuck size	750	1000	1250
A	114	130	167
B	26	32	45
C	70	79	93
D	41,5	40,2	50,5
E	40,3	54	71
F	-	-	-
G	56	64	73
H	-	-	-
J	42	49	53
K	13	13	20
L	19,5	19,5	30
Jaw approx. kg	1,135	1,835	3,665

Chuck size	750	1000	1250
A	118,7	136,6	173,6
B	26	32	45
C	70	79	93
Jaw approx. kg	1,535	2,400	5

Base jaws GB, hardened and ground  
Jaws only usable in basic chuck.



Chuck size	750	1000	1250
A	110	125	160
B	26	32	45
C	26	30	35
D	20	26	30
E	5,5	6,5	7,5
F	12	12	18
G	3	3	4
H	7	7,6	8,6
J	10	14	15
K	M12x1,5	M12x1,5	M16x1,5
L	40	54	60
M	163	196	250 294
Jaw approx. kg	0,700	1,065	2,350