

# LVE



### APPLICATION

Optimally suited for flange, bar and tube machining, especially for machines without a clamping cylinder.

### TYPE

Power chuck with integrated pneumatic cylinder and cylindrical center mount. 3-jaw version with serration (90°).

### CUSTOMER BENEFITS

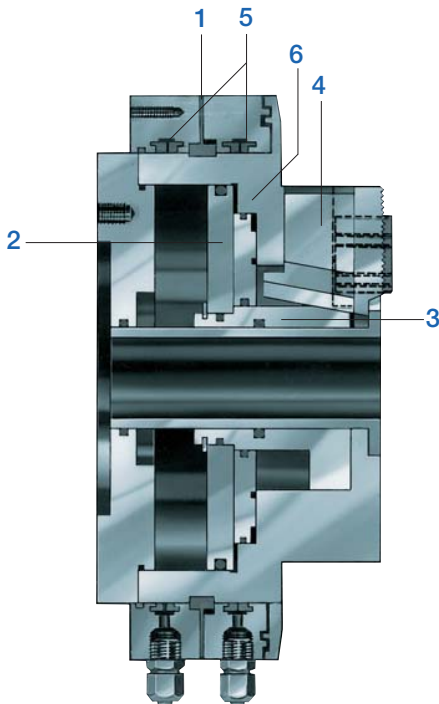
- ③ Large through-hole
- ③ Can be easily exchanged with manual clamping chuck
- ③ Compact system dimensions because it is self-contained
- ③ Unobstructed bore through spindle thanks to omission of the draw tube
- ③ High clamping force already at 6 bar

### TECHNICAL FEATURES

- Clamping and unclamping only when spindle at standstill
- Wedge hook system with integrated clamping cylinder

### Included in scope of delivery:

Chuck, chuck and jaw mounting screws, slot nuts (without top jaws)



Air-operated self-contained chuck LVE

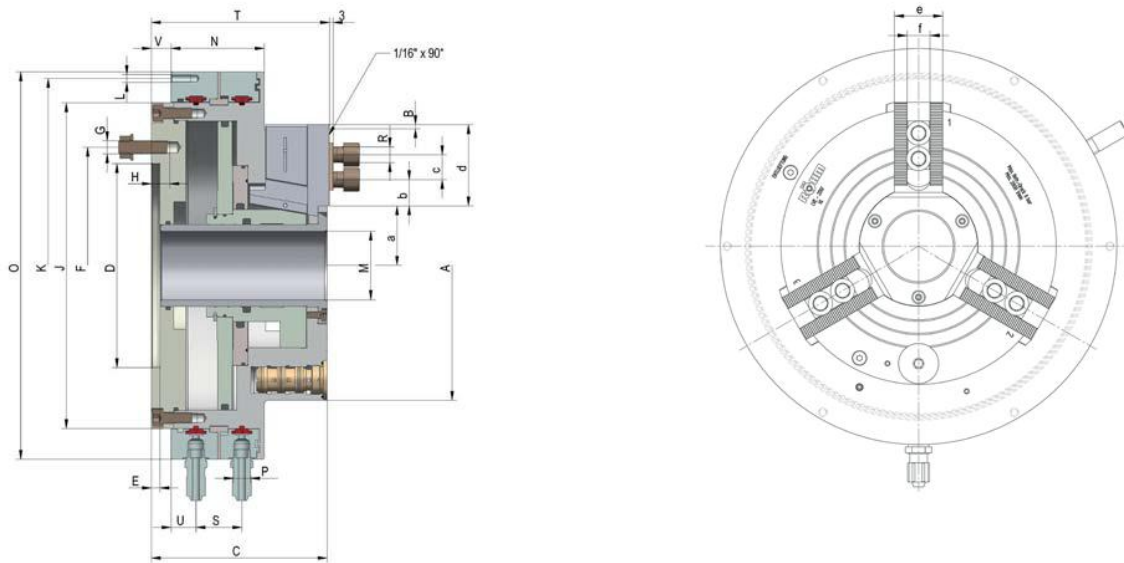
### Mode of operation:

The compressed air is conducted through the stationary floating ring **1** via a double non-return valve into one of the two pressure chambers. The force acting on the pressure piston **2** is transferred through the clamping piston to the base jaws **4** via the proven wedge hook system **3**. During the clamping and unclamping operation, profile seals **5** seal off the floating ring **1** from the body **6**. After the clamping operation is finished, the pressure in the chuck body is maintained by the valve, whereby the supply lines are depressurized. The profile seals lift up due to their elasticity and are not damaged by the rotating chuck body.

### Components:

1. Floating ring
2. Pressure piston
3. Wedge system
4. Base jaws
5. Special seals
6. Body

# LVE up to 10 bar, cylindrical centre Mount, serration 90°



C 15

**3-jaw self-contained chucks LVE, with through-hole, max. operating pressure 8 bar, with serration, cylindrical centre mount**

Item no.	420189	420190	420191	420192	420193
Size	125	160	200	250	315
A mm	136	168	205	255	320
Jaw travel B mm	3	4,2	4,2	5	5
C mm	101,5	130,5	134	146	156,5
DH6 mm	120	125	155	185	225
E mm	6	6,5	6,5	6,5	6,5
F mm	137	150	180	210	250
G	M 8	M 10	M 10	M 10	M 10
H mm	8	13	14	14	14
J mm	164	205	248	315	350
K mm	190	235	285	358	388
L	M 6	M 6	M 6	M 6	M 16
M mm	26	38	52	68	90
N mm	66,5	80,5	71	78,5	79,5
O mm	204	250	295	370	400
P mm	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"
R	M 8	M 8	M 12	M 16	M 6
S mm	32	41	35	37	36
T mm	103	131,5	134	147,5	158
U mm	20	20,7	19	19	18
V mm	-	4	15	15,5	25
a min.	24	31,8	41,2	50	61,5
a max.	27	36	45,4	55	66,5
b min.	10	10	13	15	14,5
b max.	21	19,5	35	43	64
c mm	min. 14 / max. 25	2 x 15	19	25	25
d mm	41	49,5	62	78	99
e mm	25	32	36	44	44
fH7 mm	12	12	17	21	21
Max. operating pressure bar	8	8	8	8	8
Min. operating pressure bar	2	2,5	2,5	2,5	2,5
Total clamping force at 6 bar kN	20	35	60	95	120
Max. admissible speed min-1	4000	3500	2800	2200	1800
Moment of inertia J kgm <sup>2</sup>	0,028	0,125	0,262	0,675	1,35
Air consumption/jaw travel at 6 bar NL	1,5	3,6	6,1	9,9	12,3
Weight without jaws approx. kg	13	25	36	57	85

Higher speeds by fastening the stationary floating ring

LVE chuck with short taper mount ISO 702-3 (DIN 55027, studs and locknuts) on request

LVE chuck with short taper mount ISO 702-2 (DIN55029, studs for Camlock) on request

# Jaws LVE

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**Reversible top jaws, 3-jaw set, hardened serration 90° - material: 16 MnCr 5**


Item no.	Chuck Size	Jaw length mm	Jaw height mm	Jaw width mm	Serration
046404	125/160	56	37,5	26	1/16"x 90°
118522	200	75	49	36	1/16"x 90°
046414	250/315	103,5	58	50	1/16"x 90°

Additionally or later applied, hardened jaws must be ground out in the chuck.

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**Soft top jaws, 3-jaw set, can be hardened serration 90° - material: 16 MnCr 5**

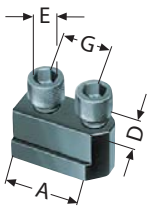

Item no.	Chuck Size	Jaw length mm	Jaw height mm	Jaw width mm	Serration
046403	125/160	55	38	26,5	1/16"x 90°
133153	200	75	53	36,5	1/16"x 90°
133154	250/315	95	54,5	45	1/16"x 90°

# Accessories LVE

C 15

**Extended T-nuts**

With screw



Item no.	Chuck Size	Con- tents of delivery	D mm	E	G mm
241673 <sup>1)</sup>	125	piece	12	M8x20	-
1305178	160	piece	12	M8x25	2x15
1305179	200	piece	17	M12x30	19
1305180	250/315	piece	21	M16x35	25

<sup>1)</sup> Simple slot nut

# Accessories LVE

C 15  
Electro-pneumatic safety control block for LVE 125-315



Item no.	voltage
437747	220 V 50 Hz
437748	24 V Dc

Please order accessories and connection hoses separately

C 15  
Manual pulse generator, without cable



Item no.	Contents of delivery
220629 ▲	piece

C 15  
Double foot-control switch



Item no.	Contents of delivery
249325 ▲	piece

C 15  
Service unit



Item no.	Contents of delivery
367444 <sup>1)</sup> ▲	piece

<sup>1)</sup> Consisting of filter, water separator and oiler, R 3/8"

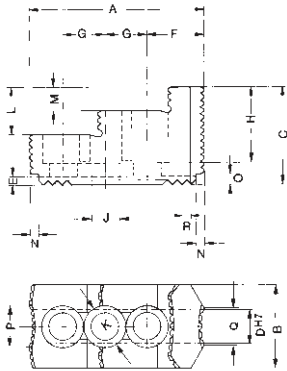
C 15  
Connector



Item no.	Chuck Size	Design	Contents of delivery
720233	125-200	snap-on connector CX-R 1/4"-PX-6	piece
720235	125-200	swivel connector LCX-R 1/4"-PX-6	piece
720260	250-315	straight screw-in unions Ø 12/9 R 1/4"	piece
720261	250-315	swivel connector Ø 12/9 R 1/4"	piece

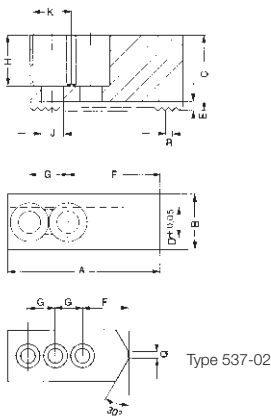
# Jaw dimensions und Chucking capacities LVE

**Reversible top jaws UB,**  
hardened, serration 90°,  
material 16MnCr5



Chuck size	125	160	200	250	315
Type	538-02	538-02	538-04	538-05	538-05
Item no. 3-jaw	<b>046404</b>	<b>046404</b>	<b>118522</b>	<b>046414</b>	<b>046414</b>
A	56	56	75	103,5	103,5
B	26	26	36	50	50
C	37,5	37,5	49	58	58
DH7	12	12	17	21	21
E	3,5	3,5	5	5	5
F	14	14	21,5	33,5	33,5
G	15	15	19	25	25
H	29	29	37,5	45	45
J	8,4	8,4	13	17	17
K	13,5	13,5	19	25	25
L	20	20	24	28	28
M	10	10	12	14	14
N	4	4	6	6	6
O	4	4	7,5	6,5	6,5
P	5	5	18	24,5	24,5
Q	5	5	7	22,5	22,5
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,170	0,170	0,460	1,130	1,130

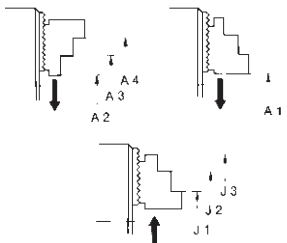
**Soft top jaws AB,**  
material 16MnCr5



Chuck size	125	160	200	250	250
Type	538-02	538-02	538-04	538-05	538-05
Item no. 3-jaw	<b>046403</b>	<b>046403</b>	<b>133153</b>	<b>133154</b>	<b>133154</b>
A	55	55	75	95	95
B	26,5	26,5	36,5	45	45
C	38	38	53	54,5	54,5
DH7	12	12	17	21	21
E	3,5	3,5	5	5	5
F	31	31	44	55	55
G	15	15	19	25	25
H	28	28	43	42,5	42,5
J	8,4	8,4	13	17	17
K	13,5	13,5	19	25	25
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,320	0,320	0,880	1,400	1,400

Jaw dimensions und  
Chucking capacities

Chucking capacities with reversible  
top jaws UB



Chuck size		125	160	200	250	315
	with reversible jaws	Type	538-02	538-02	538-04	538-05
External chucking	Jaw position					
	A1	12-63	28-80	30-115	20-128	41-194
	A2	17-69	32-84	44-128	46-154	67-220
	A3	67-119	82-132	101-185	128-238	150-303
Internal chucking	A4	101-153	118-168	152-236	210-318	231-384
	J1	49-99	64-116	80-165	70-188	91-244
	J2	81-131	96-148	130-214	146-255	168-320
	J3	125-175	140-192	182-266	225-334	246-400