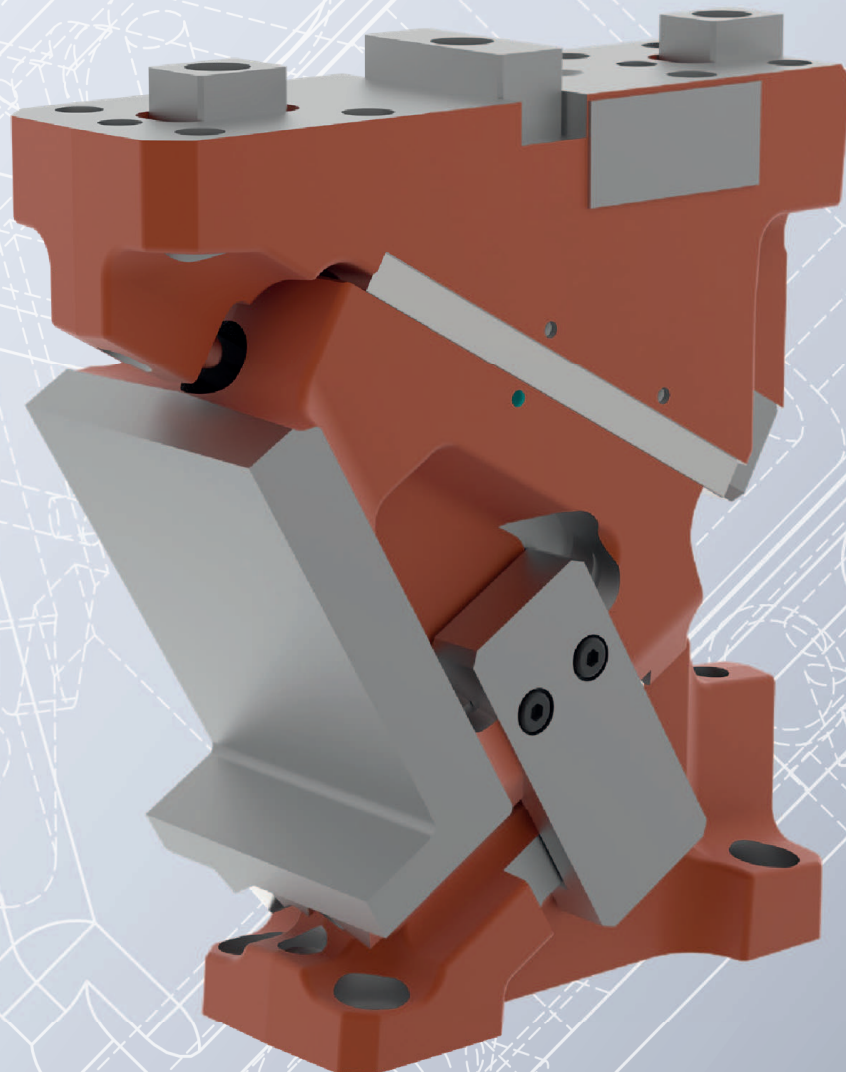


AERIAL CAM UNIT 2016.27.



AERIAL CAM UNIT FCC-LV-C 2016.27.

Our aerial cam units, 2016.27 FCC-OT-LV-C series, are distinguished due to its extrem compact overall dimensions. They are well suited for tools with small and medium-size strokes per lifetime, and also convince with high working and retraction forces.

The glide pairing of this cam unit series is performed in sintered/bronze sliding elements against a non-hardened cast surface. The wear elements of the guides are catalog items from our Standard Parts product range and offer excellent availability.

The gas springs are accessible from the rear of the cam unit in all cam slide units in this series and can be disassembled within the tool. These gas springs with the advanced safety features used in our cam units, provide the best possible safety standards according to the Pressure Equipment Directive.

The cam slide units in this series meet the requirements of the BAK specifications, and are available from stock in the event of a crash. These cam units can be ordered ex works with a machined work surface according to your data set upon request. This machining meets the highest requirements of modern toolmaking processes.

Design features:

- Prism guide against driver / box guide against base
- Cast sliding surfaces (unhardened) / bronze with solid lubricant or sinter
- Gas spring with safety features
- The gas spring can be removed within the tool (without disassembling the cam unit).
- Mechanical retraction
- Structural damper
- Cam unit in the tool can be removed towards the rear
- Extrem compact overall dimensions

Aerial cam units in the FCC OT-LV-C 2016.27 series are available in six widths as standard from 65mm to 160mm, each in angle variants from 0-75° in 5° increments.

Further widths and angles, as well as further customer-specific designs are available on request.

Order No	Width [mm]	Performance class [kN]	Page
2016.27.006.□□.2000.00	65	110	3
2016.27.008.□□.2000.00	85	110	3
2016.27.009.□□.2000.00	90	180	13
2016.27.011.□□.2000.00	115	180	13
2016.27.012.□□.2000.00	125	250	23
2016.27.016.□□.2000.00	160	250	23

*For exact power values, please refer to the force diagrams of the corresponding cam units

Assembly instructions	33
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Ordering Code (example):

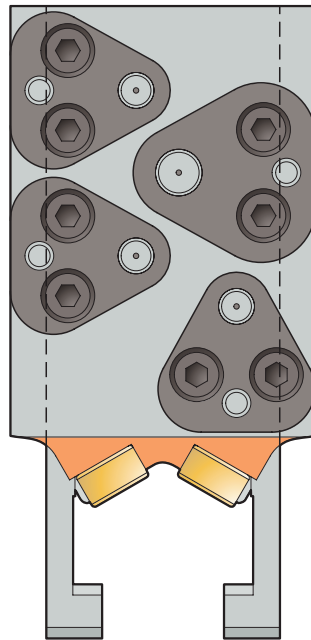
FIBRO Aerial cam unit FCC-LV-C, Width 65mm	=	2016.27.006. □□. 2000.00
Slide angle $\varepsilon = 30^\circ$	=	30.
Order No	=	2016.27.006. 30. 2000.00

AERIAL CAM UNIT FCC-LV-C

DOUBLE WIDTHS

The width grading of the cam slide unit series 2016.27 is divided into 3x2 double widths, and thus available for each base width in a narrow design, as well as in a narrow design with a widened working surface. The narrow variants impress with their compact dimensions along the entire cam slide unit length, as well as high working forces on all segments of the cam slide unit working surface. With identical cam sliders, the widened designs offers more mounting space for low-force active components (e.g. punch retainers, scraper components) or for large active components with a homogeneous arrangement over the entire working surface.

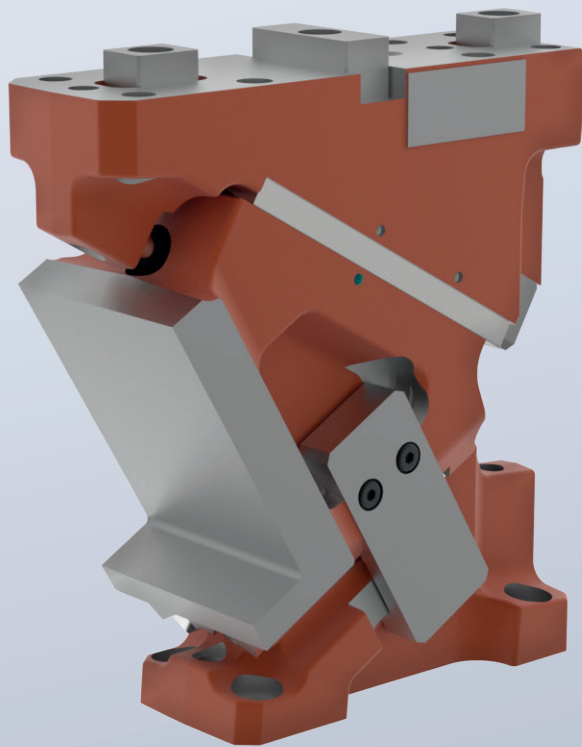
The figure shows a version with a widened working area. Attached to this working surface are multiple punches with standard, polygon-shaped retainer plates. The force-free screw positions have been rotated into the outer area of the working surface. Multiple punches, through which the force vector is passed, are concentrated in the centre of the cam slide unit working surface.



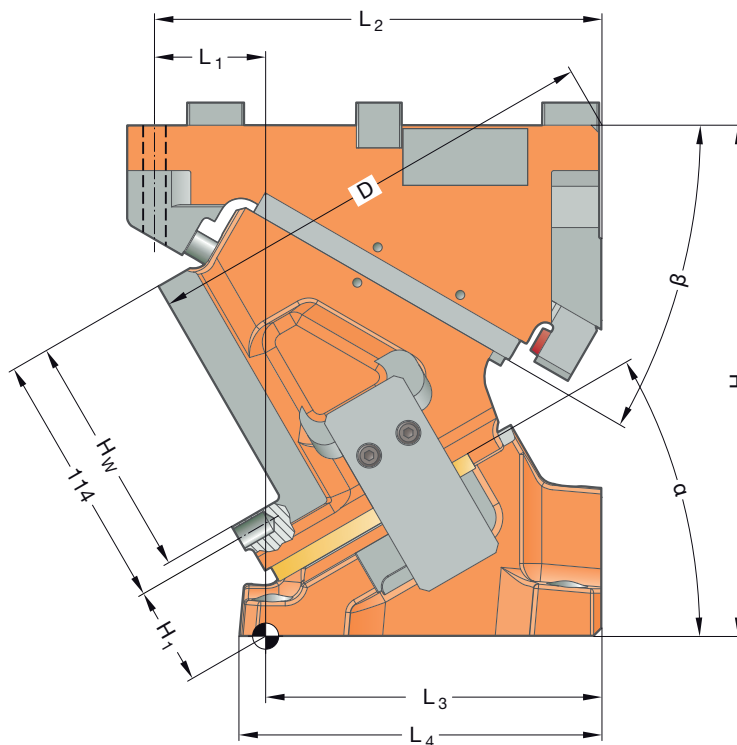
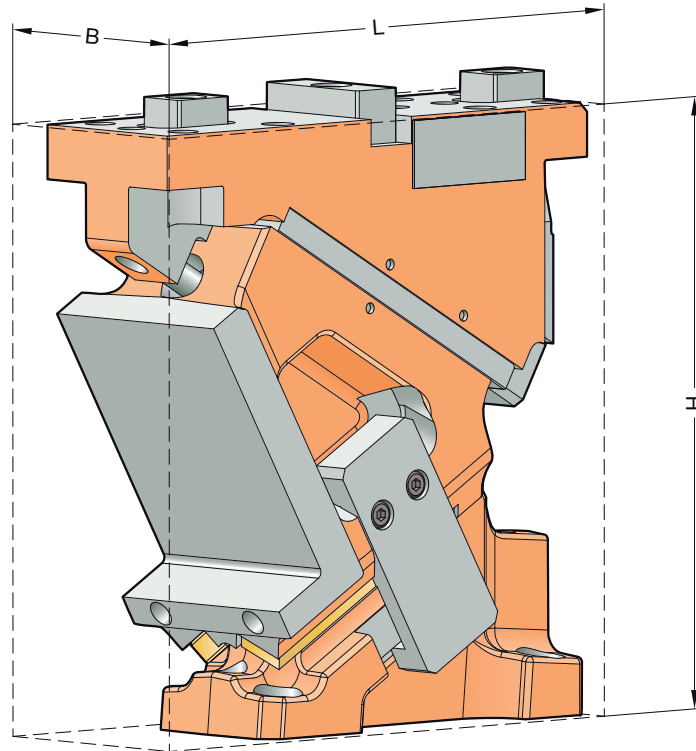
AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

Working width: 65/85 mm

Performance class: 110 kN

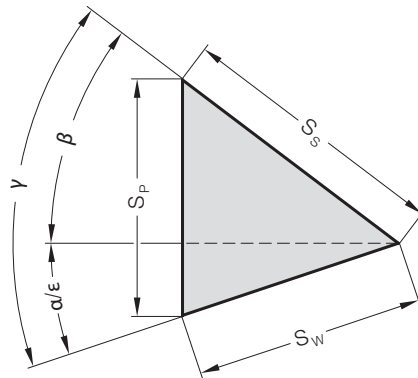


AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.
SIZE TABLE



AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

SIZE TABLE



Order No	L [mm]	B [mm]	H [mm]	H ₁ [mm]	H _W [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	L ₄ [mm]	D [mm]	α [°]	β [°]	S _W [mm]	S _S [mm]	S _P [mm]
2016.27.006.00.2000.00	210	65	225	64	108	14	182	178	192	170	0	50	28,3	44	33,7
2016.27.008.00.2000.00		85													
2016.27.006.05.2000.00	201	65	225	58,6	108	1	192	178	188	180,97	5	45	31,2	44	33,8
2016.27.008.05.2000.00		85													
2016.27.006.10.2000.00	206	65	225	52,06	108	6	192	188	202	190,35	10	40	34,2	44	34,2
2016.27.008.10.2000.00		85													
2016.27.006.15.2000.00	223	65	225	45,59	108	22	202	188	198	198,15	15	35	37,3	44	34,9
2016.27.008.15.2000.00		85													
2016.27.006.20.2000.00	204	65	225	47,03	108	30	192	158	171	198,78	20	40	35,9	44	40,6
2016.27.008.20.2000.00		85													
2016.27.006.25.2000.00	217	65	225	42,23	108	46	202	158	167	204,36	25	35	39,8	44	42,0
2016.27.008.25.2000.00		85													
2016.27.006.30.2000.00	209	65	225	42,94	108	49	197	148	159	204,48	30	30	42,0	42	42,0
2016.27.008.30.2000.00		85													
2016.27.006.35.2000.00	228	65	225	42,25	108	67	202	148	158	202,36	35	25	46,5	42	44,4
2016.27.008.35.2000.00		85													
2016.27.006.40.2000.00	211	65	225	106,02	108	164	197	35	139	212,76	40	30	47,5	42	51,5
2016.27.008.40.2000.00		85													
2016.27.006.45.2000.00	231	65	225	113,25	108	183	202	35	139	208,36	45	25	53,8	42	55,8
2016.27.008.45.2000.00		85													
2016.27.006.50.2000.00	241	65	225	116,60	108	196	202	35	140	200,74	50	20	48,2	33	48,2
2016.27.008.50.2000.00		85													
2016.27.006.55.2000.00	260	65	225	118,89	108	209	202	35	138	198,84	55	15	55,6	33	54,1
2016.27.008.55.2000.00		85													
2016.27.006.60.2000.00	237	65	225	98,33	108	192	202	35	120	189,09	60	20	54,5	29	57,1
2016.27.008.60.2000.00		85													
2016.27.006.65.2000.00	255	65	225	98,48	108	204	202	35	117	185,92	65	15	66,3	29	67,6
2016.27.008.65.2000.00		85													
2016.27.006.70.2000.00	250	65	225	94,74	108	204	192	35	120	171,27	70	10	63,3	22	63,3
2016.27.008.70.2000.00		85													
2016.27.006.75.2000.00	264	65	225	90,36	108	211	192	35	113	168,42	75	5	69,3	18	68,5
2016.27.008.75.2000.00		85													

Fastening

Hexagon socket head cap screws DIN EN ISO 4762 / Strength class min. 8.8
Dowel pins DIN EN ISO 8735

Cam base:

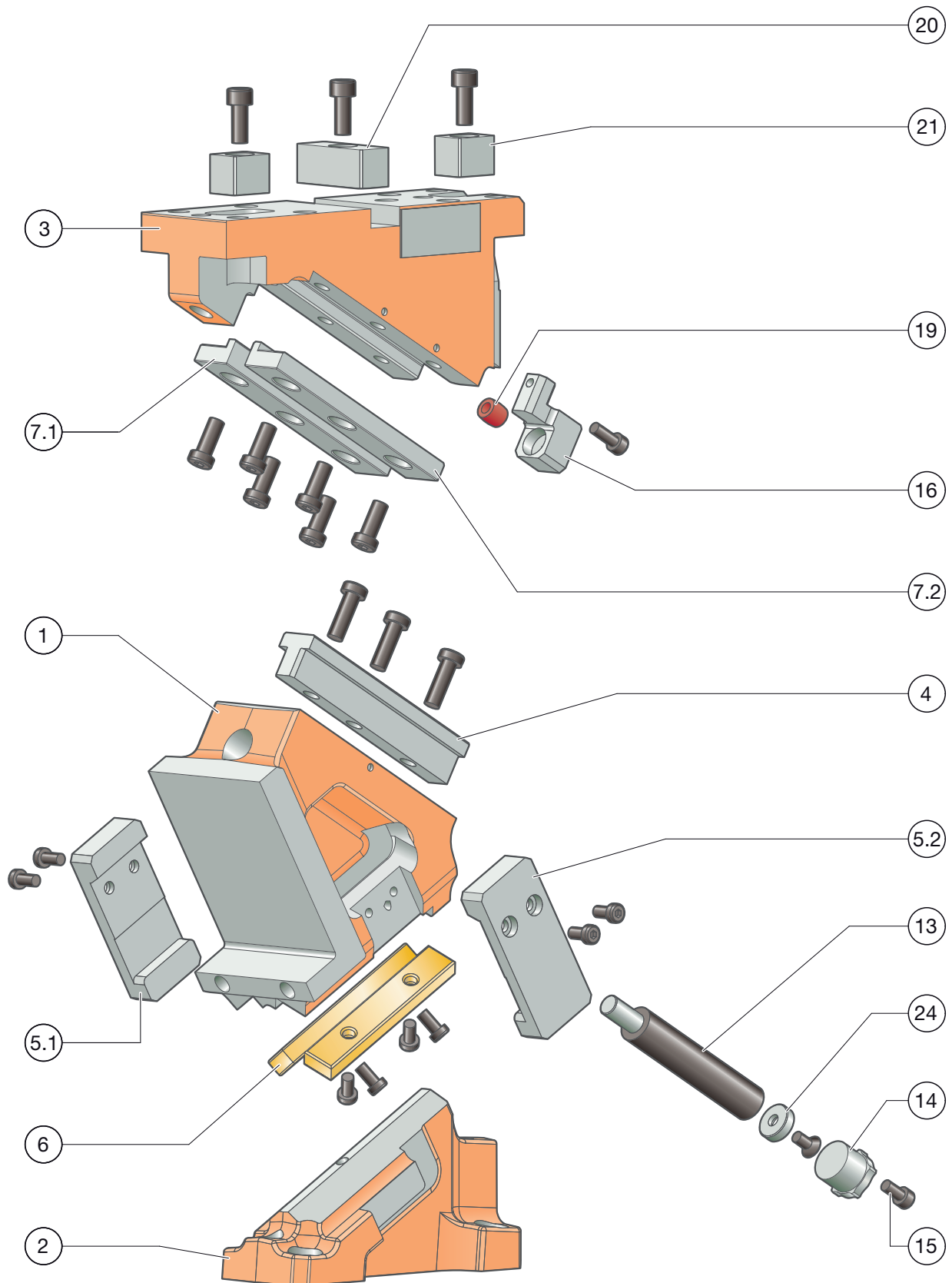
4 × M10
2 × ø10

Driver:

4 × M10
2 × ø10

AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

EXPLODED VIEW



AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

PARTS LIST

Item No.	Pcs.	Designation	Material	tuned	Spare part
1	1	Cam slider	EN-JS-1060	--	--
2	1	Driver	EN-JS-1060	--	--
3	1	Cam base	St52-3	--	--
4	1	Centre guide	1.2379	--	x
5.1	1	mechanical retraction, left	1.1191 with sinter layer	x	x
5.2	1	mechanical retraction, right	1.1191 with sinter layer	x	x
6	2	Sliding plate	Bronze with solid lubricant	--	x
7.1	1	L-guide, left	1.1191 with sinter layer	x	x
7.2	1	L-guide, right	1.1191 with sinter layer	x	x
8					
9					
10					
11					
12					
13	1	Gas spring	2487.12.00.170.□□□	--	x
14	1	Locking tappet	1.7131	--	x
15	1	Secure screw		--	x
16	1	Slide stop	1.1191	--	x
17 (not shown)	1	Spacer		--	x
18 (not shown)	1	Lockout system	1.1191	--	x
19	1	Damper	Elastomer	--	x
20	1	Feather key (T-nut)	1.1191	--	x
21	2	Feather key (T-nut)	1.1191	--	x
22					
23					
24* (not shown)	1	Spacer	1.1191	--	x

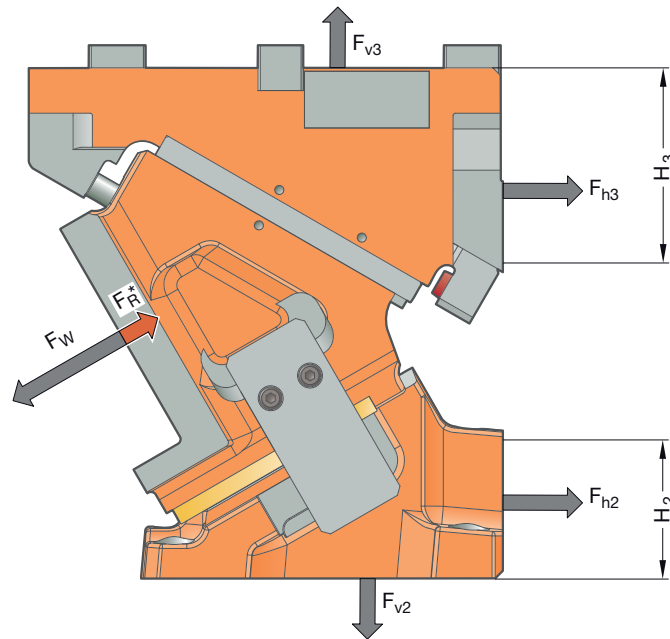
* not installed at all angles

For inquiries or when ordering spare parts (x), we require the following data:

- Cam unit order no.
- Cam unit serial number
- Item No. / Designation / Spare part

AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

SYSTEM AND SURROUNDING FORCES



All noted forces of 2016.27 FCC-OT-LV-C-series within this catalogue are pre-calculated values, calculated with higher margin of safety.

Order No	α [°]	F_w [kN]	F_R^* [kN]	F_{h2} [kN]	F_{v2} [kN]	F_{h3} [kN]	F_{v3} [kN]	H_2 [mm]	H_3 [mm]
2016.27.00□.00.2000.00	0	110	12	-8	114	118	114	33	115
2016.27.00□.05.2000.00	5	113	12	2	117	111	127	43	105
2016.27.00□.10.2000.00	10	116	12	13	120	102	140	42	95
2016.27.00□.15.2000.00	15	118	12	23	120	91	151	52	85
2016.27.00□.20.2000.00	20	117	12	23	80	87	120	49	95
2016.27.00□.25.2000.00	25	116	12	30	77	76	126	59	85
2016.27.00□.30.2000.00	30	115	12	36	73	64	131	65	70
2016.27.00□.35.2000.00	35	114	12	42	69	52	135	77	60
2016.27.00□.40.2000.00	40	113	12	31	42	56	115	69	70
2016.27.00□.45.2000.00	45	112	12	34	39	45	118	82	60
2016.27.00□.50.2000.00	50	113	12	37	36	35	123	88	45
2016.27.00□.55.2000.00	55	115	12	41	33	25	128	97	40
2016.27.00□.60.2000.00	60	116	12	24	17	34	117	104	45
2016.27.00□.65.2000.00	65	117	12	26	14	23	120	112	40
2016.27.00□.70.2000.00	70	118	12	27	12	13	123	98	25
2016.27.00□.75.2000.00	75	118	12	28	10	2	124	107	20

* Retraction force values correspond to the spring-generated retraction force at the working point

The forces F_{h2} , F_{v2} as well as F_{h3} , F_{v3} act on the tool environment at maximum working force F_w .

AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

FORCE DIAGRAMS

Support via cast shoulder

Width 65/85 mm

0°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	39	59	39	31
	21,6	35	50	75	50	35
	21,6	37	61	101	61	37
	21,6	37	63	110	63	37
	21,6	30	51	83	51	30

Support via feather key

Width 65/85 mm

0°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	32	33	32	31
	21,6	34	34	36	34	34
	21,6	33	33	33	33	33
	21,6	31	31	32	31	31
	21,6	30	30	31	30	30

Width 65/85 mm

5°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	39	58	39	31
	21,6	36	50	75	50	36
	21,6	37	62	101	62	37
	21,6	37	62	113	62	37
	21,6	30	51	84	51	30

Width 65/85 mm

5°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	39	42	39	31
	21,6	36	45	46	45	36
	21,6	37	43	44	43	37
	21,6	37	41	42	41	37
	21,6	30	40	41	40	30

Width 65/85 mm

10°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	39	58	39	31
	21,6	36	50	74	50	36
	21,6	38	63	101	63	38
	21,6	38	62	116	62	38
	21,6	31	51	84	51	31

Width 65/85 mm

10°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	39	51	39	31
	21,6	36	50	56	50	36
	21,6	38	54	55	54	38
	21,6	38	51	52	51	38
	21,6	31	50	51	50	31

Width 65/85 mm

15°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	38	58	38	31
	21,6	37	50	74	50	37
	21,6	38	63	101	63	38
	21,6	38	61	118	61	38
	21,6	31	51	84	51	31

Width 65/85 mm

15°		10	22,5	20	22,5	10
Height 108 mm	21,6	31	38	57	38	31
	21,6	37	50	67	50	37
	21,6	38	63	66	63	38
	21,6	38	61	63	61	38
	21,6	32	51	60	51	32

Width 65/85 mm

20°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	37	57	37	29
	21,6	35	49	74	49	35
	21,6	37	62	103	62	37
	21,6	37	61	117	61	37
	21,6	32	50	84	50	32

Width 65/85 mm

20°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	37	57	37	29
	21,6	35	49	71	49	35
	21,6	37	62	70	62	37
	21,6	37	61	67	61	37
	21,6	32	50	64	50	32

Width 65/85 mm

25°		10	22,5	20	22,5	10
Height 108 mm	21,6	28	35	56	35	28
	21,6	33	48	75	48	33
	21,6	35	62	116	62	35
	21,6	36	61	116	61	36
	21,6	31	49	83	49	31

Width 65/85 mm

25°		10	22,5	20	22,5	10
Height 108 mm	21,6	28	35	56	35	28
	21,6	33	48	75	48	33
	21,6	35	62	74	62	35
	21,6	36	61	71	61	36
	21,6	31	49	68	49	31

AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

FORCE DIAGRAMS

Support via cast shoulder

		Width 65/85 mm				
30°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	39	55	39	29
	21,6	36	53	75	53	36
	21,6	39	70	106	70	39
	21,6	40	69	115	69	40
	21,6	36	56	81	56	36

Support via feather key

		Width 65/85 mm				
30°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	39	55	39	29
	21,6	36	53	75	53	36
	21,6	39	70	78	70	39
	21,6	40	69	75	69	75
	21,6	36	56	72	56	36

Support via cast shoulder

		Width 65/85 mm				
35°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	40	54	40	29
	21,6	37	56	75	56	37
	21,6	40	74	108	74	40
	21,6	40	74	114	74	40
	21,6	37	59	80	59	37

Support via feather key

		Width 65/85 mm				
35°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	40	54	40	29
	21,6	37	56	75	56	37
	21,6	40	74	85	74	40
	21,6	40	74	83	74	40
	21,6	37	59	79	59	37

Support via cast shoulder

		Width 65/85 mm				
40°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	40	54	40	29
	21,6	36	58	76	58	36
	21,6	40	77	110	77	40
	21,6	42	77	113	77	42
	21,6	38	63	79	63	38

Support via feather key

		Width 65/85 mm				
40°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	40	54	40	29
	21,6	36	58	76	58	36
	21,6	40	77	93	77	40
	21,6	42	77	92	77	42
	21,6	38	63	79	63	38

Support via cast shoulder

		Width 65/85 mm				
45°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	41	53	41	29
	21,6	36	61	76	61	36
	21,6	40	81	111	81	40
	21,6	42	82	112	82	42
	21,6	39	65	78	65	39

Support via feather key

		Width 65/85 mm				
45°		10	22,5	20	22,5	10
Height 108 mm	21,6	29	41	53	41	29
	21,6	36	61	76	61	36
	21,6	40	81	100	81	40
	21,6	42	82	101	82	42
	21,6	39	65	78	65	39

Support via cast shoulder

		Width 65/85 mm				
50°		10	22,5	20	22,5	10
Height 108 mm	21,6	28	41	52	41	28
	21,6	35	63	76	63	35
	21,6	40	85	113	85	40
	21,6	43	85	111	85	43
	21,6	39	68	77	68	39

Support via feather key

		Width 65/85 mm				
50°		10	22,5	20	22,5	10
Height 108 mm	21,6	28	41	52	41	28
	21,6	35	61	76	61	35
	21,6	40	85	113	85	40
	21,6	43	85	109	85	43
	21,6	39	68	77	68	39

Support via cast shoulder

		Width 65/85 mm				
55°		10	22,5	20	22,5	10
Height 108 mm	21,6	28	40	51	40	28
	21,6	32	61	77	61	32
	21,6	38	83	115	83	38
	21,6	41	86	110	86	41
	21,6	36	67	76	67	36

Support via feather key

		Width 65/85 mm				
55°		10	22,5	20	22,5	10
Height 108 mm	21,6	26	39	51	39	26
	21,6	32	57	77	57	32
	21,6	36	83	114	83	36
	21,6	41	86	110	86	41
	21,6	34	67	76	67	34

AERIAL CAM UNIT FCC-LV-C 2016.27.006./008.

FORCE DIAGRAMS

Support via cast shoulder

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	60°	21,6	26	37	50	37	26
		21,6	29	60	77	60	29
		21,6	36	82	116	82	36
		21,6	40	85	109	85	40
		21,6	33	66	75	66	33

Support via feather key

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	60°	21,6	22	34	50	34	22
		21,6	29	53	77	53	29
		21,6	28	82	115	82	28
		21,6	36	85	109	85	36
		21,6	27	66	75	66	27

Support via cast shoulder

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	65°	21,6	24	37	50	37	24
		21,6	30	60	77	60	30
		21,6	36	82	117	82	36
		21,6	40	86	110	86	40
		21,6	33	66	75	66	33

Support via feather key

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	65°	21,6	22	34	50	34	22
		21,6	29	54	77	54	29
		21,6	28	82	115	82	28
		21,6	37	86	110	86	37
		21,6	28	66	74	66	28

Support via cast shoulder

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	70°	21,6	24	37	50	37	24
		21,6	30	60	77	60	30
		21,6	36	83	118	83	36
		21,6	40	86	111	86	40
		21,6	34	66	73	66	34

Support via feather key

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	70°	21,6	23	34	50	34	23
		21,6	29	54	77	54	29
		21,6	29	83	115	83	29
		21,6	38	86	111	86	38
		21,6	29	66	73	66	29

Support via cast shoulder

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	75°	21,6	24	37	50	37	24
		21,6	30	60	77	60	30
		21,6	36	83	118	83	36
		21,6	40	87	112	87	40
		21,6	35	66	71	66	35

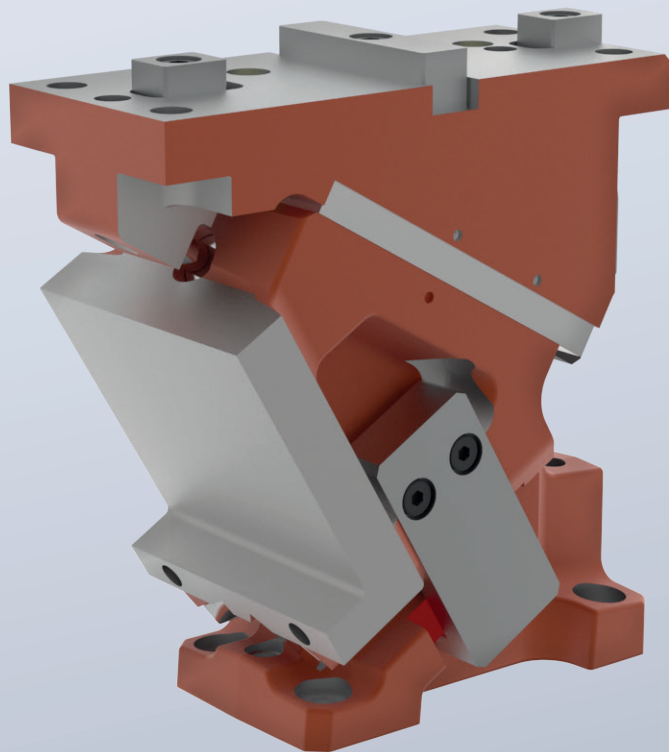
Support via feather key

		Width 65/85 mm					
		10	22,5	20	22,5	10	
Height 108 mm	75°	21,6	23	34	50	34	23
		21,6	29	54	77	54	29
		21,6	29	83	115	83	29
		21,6	39	87	112	87	39
		21,6	29	66	71	66	29

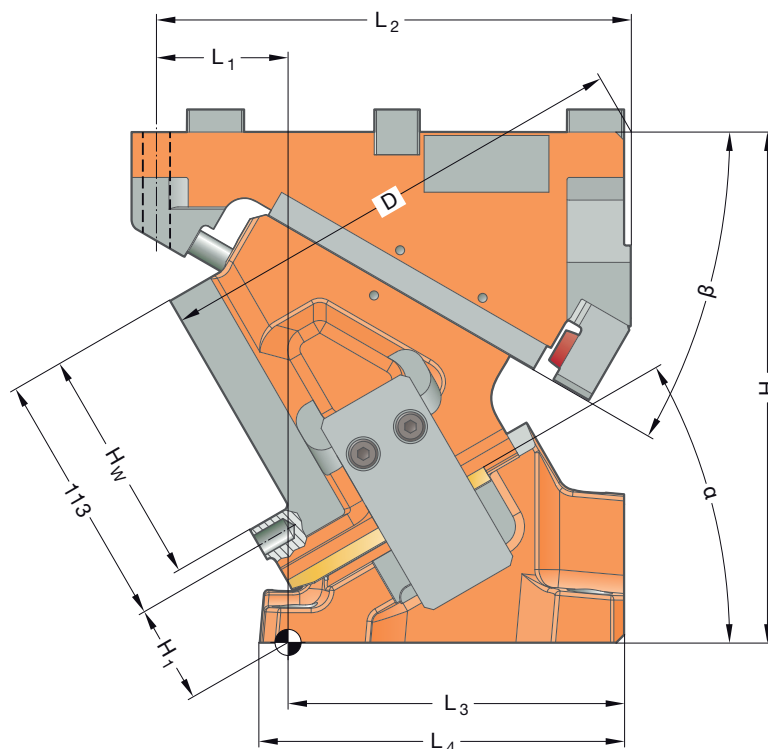
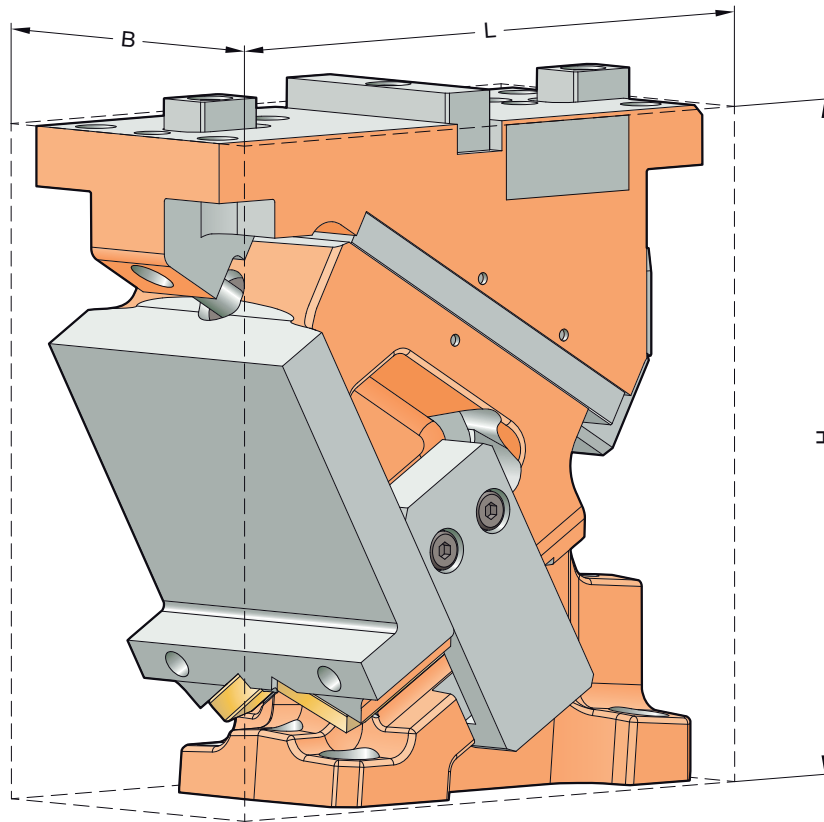
AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

Working width: 90/115 mm

Performance class: 180 kN

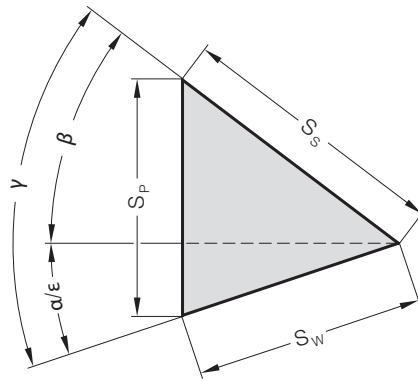


AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.
SIZE TABLE



AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

SIZE TABLE



Order No	L [mm]	B [mm]	H [mm]	H ₁ [mm]	H _W [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	L ₄ [mm]	D [mm]	α [°]	β [°]	S _W [mm]	S _S [mm]	S _P [mm]
2016.27.009.00.2000.00	227	90 115	225	65	105	19	194	188	202	193	0	50	28,3	44	33,7
2016.27.011.00.2000.00															
2016.27.009.05.2000.00	217	90 115	225	58,82	105	7	199	188	199	202,94	5	45	31,2	44	33,8
2016.27.011.05.2000.00															
2016.27.009.10.2000.00	211	90 115	225	53,18	105	2	199	188	202	212,09	10	40	34,2	44	34,2
2016.27.011.10.2000.00															
2016.27.009.15.2000.00	220	90 115	225	48,45	105	15	204	188	199	218,2	15	35	37,3	44	34,9
2016.27.011.15.2000.00															
2016.27.009.20.2000.00	210	90 115	225	47,97	105	31	199	158	171	209,08	20	40	35,9	44	40,6
2016.27.011.20.2000.00															
2016.27.009.25.2000.00	220	90 115	225	45,79	105	45	204	158	169	212,63	25	35	39,8	44	42,0
2016.27.011.25.2000.00															
2016.27.009.30.2000.00	220	90 115	225	43,44	105	58	209	148	161	212,95	30	30	42,0	42	42,0
2016.27.011.30.2000.00															
2016.27.009.35.2000.00	236	90 115	225	42,82	105	74	214	148	159	212,27	35	25	46,5	42	44,4
2016.27.011.35.2000.00															
2016.27.009.40.2000.00	220	90 115	225	107,66	105	173	209	35	140	224,82	40	30	47,5	42	51,5
2016.27.011.40.2000.00															
2016.27.009.45.2000.00	238	90 115	225	114,25	105	189	214	35	139	221,6	45	25	53,8	42	55,8
2016.27.011.45.2000.00															
2016.27.009.50.2000.00	237	90 115	225	118,24	105	191	204	35	141	213,47	50	20	48,2	33	48,2
2016.27.011.50.2000.00															
2016.27.009.55.2000.00	255	90 115	225	120,46	105	203	204	35	139	211,61	55	15	55,6	33	54,1
2016.27.011.55.2000.00															
2016.27.009.60.2000.00	239	90 115	225	100,03	105	193	204	35	122	196,73	60	20	54,5	29	57,1
2016.27.011.60.2000.00															
2016.27.009.65.2000.00	252	90 115	225	96,71	105	200	204	35	115	193,4	65	15	66,3	29	67,6
2016.27.011.65.2000.00															
2016.27.009.70.2000.00	253	90 115	225	90,91	105	208	199	35	116	182,68	70	10	63,3	22	63,3
2016.27.011.70.2000.00															
2016.27.009.75.2000.00	267	90 115	225	87	105	215	194	35	110	178,25	75	5	69,3	18	68,5
2016.27.011.75.2000.00															

Fastening

Hexagon socket head cap screws DIN EN ISO 4762 / Strength class min. 8.8
Dowel pins DIN EN ISO 8735

Cam base:

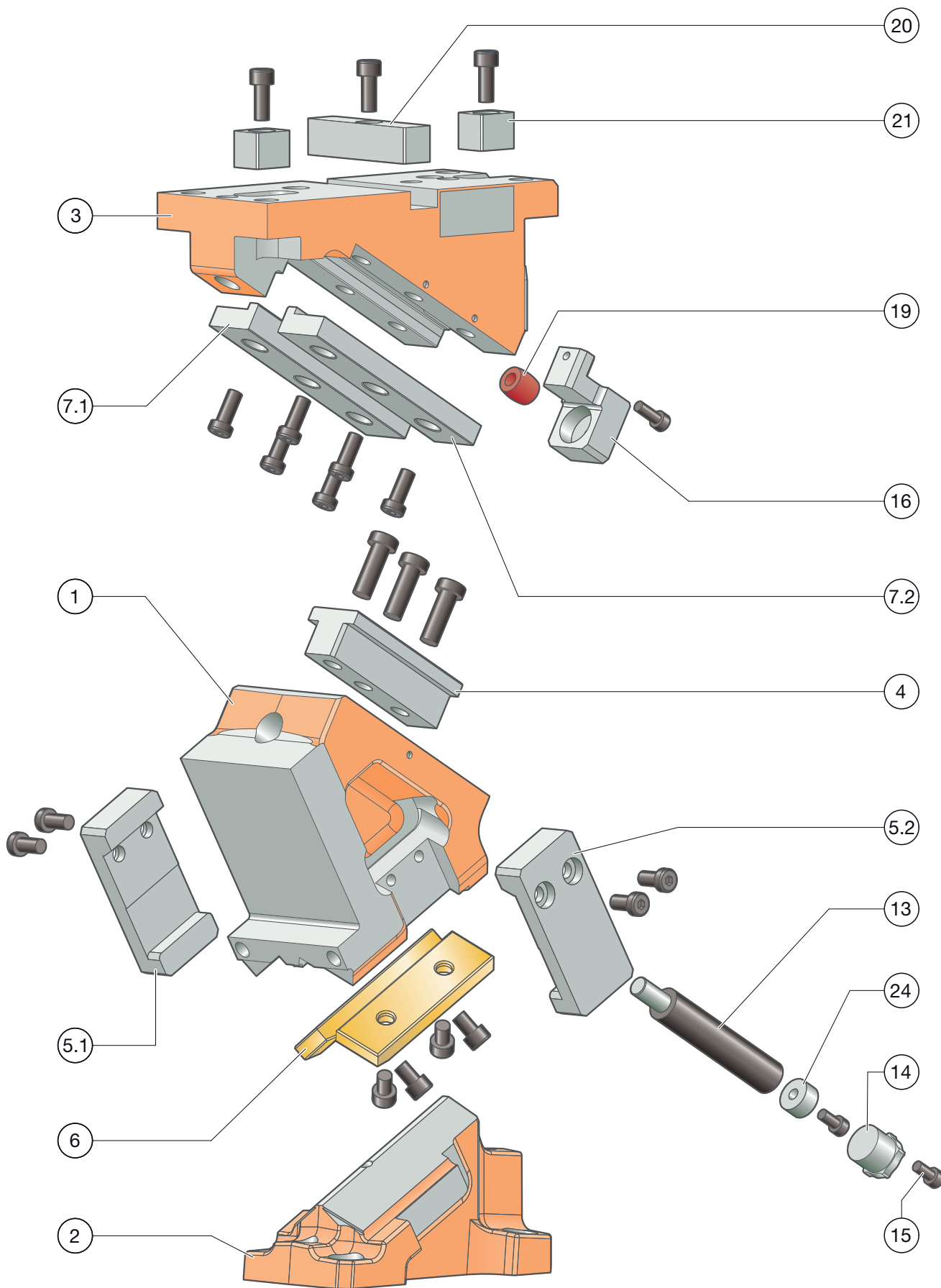
4 × M12
2 × ø12

Driver:

4 × M12
2 × ø12

AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

EXPLODED VIEW



OAERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

PARTS LIST

Item No.	Pcs.	Designation	Material	tuned	Spare part
1	1	Cam slider	EN-JS-1060	--	--
2	1	Driver	EN-JS-1060	--	--
3	1	Cam base	St52-3	--	--
4	1	Centre guide	1.2379	--	x
5.1	1	mechanical retraction, left	1.1191 with sinter layer	x	x
5.2	1	mechanical retraction, right	1.1191 with sinter layer	x	x
6	2	Sliding plate	Bronze with solid lubricant	--	x
7.1	1	L-guide, left	1.1191 with sinter layer	x	x
7.2	1	L-guide, right	1.1191 with sinter layer	x	x
8					
9					
10					
11					
12					
13	1	Gas spring	2487.12.00.170.□□□	--	x
14	1	Locking tappet	1.7131	--	x
15	1	Secure screw		--	x
16	1	Slide stop	1.1191	--	x
17 (not shown)	1	Spacer		--	x
18 (not shown)	1	Lockout system	1.1191	--	x
19	1	Damper	Elastomer	--	x
20	1	Feather key (T-nut)	1.1191	--	x
21	2	Feather key (T-nut)	1.1191	--	x
22					
23					
24* (not shown)	1	Spacer	1.1191	--	x

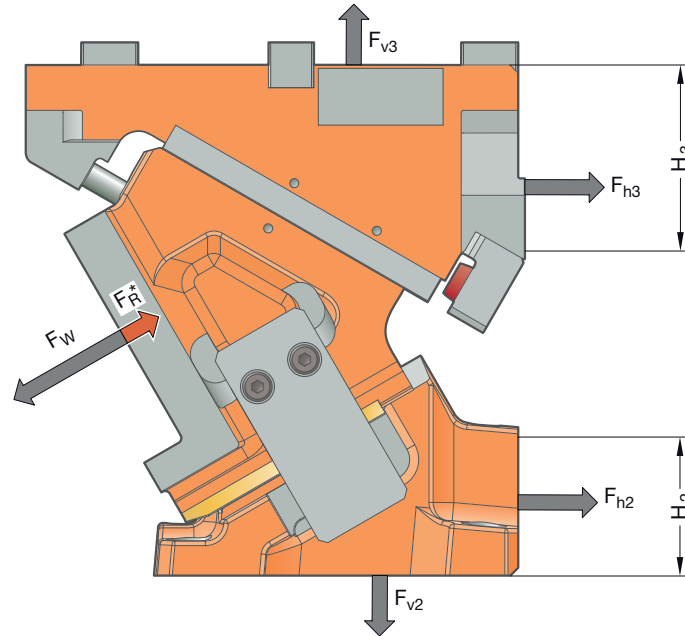
* not installed at all angles

For inquiries or when ordering spare parts (x), we require the following data:

- Cam unit order no.
- Cam unit serial number
- Item No. / Designation / Spare part

AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

SYSTEM AND SURROUNDING FORCES



All noted forces of 2016.27 FCC-OT-LV-C-series within this catalogue are pre-calculated values, calculated with higher margin of safety.

Order No	α [°]	F_W [kN]	F_R^* [kN]	F_{h2} [kN]	F_{v2} [kN]	F_{h3} [kN]	F_{v3} [kN]	H_2 [mm]	H_3 [mm]
2016.27.0□□.00.2000.00	0	180	18	-13	186	193	186	33	115
2016.27.0□□.05.2000.00	5	189	18	3	196	185	213	43	105
2016.27.0□□.10.2000.00	10	197	18	21	203	173	238	43	95
2016.27.0□□.15.2000.00	15	206	18	41	210	158	263	55	80
2016.27.0□□.20.2000.00	20	203	18	40	139	151	208	50	95
2016.27.0□□.25.2000.00	25	201	18	51	133	131	218	62	80
2016.27.0□□.30.2000.00	30	198	18	62	126	110	225	64	70
2016.27.0□□.35.2000.00	35	203	18	74	124	92	240	77	58
2016.27.0□□.40.2000.00	40	208	18	56	78	103	211	69	70
2016.27.0□□.45.2000.00	45	214	18	65	74	87	226	82	58
2016.27.0□□.50.2000.00	50	195	18	65	62	61	212	89	45
2016.27.0□□.55.2000.00	55	190	18	68	55	41	211	98	35
2016.27.0□□.60.2000.00	60	209	18	44	30	60	211	104	45
2016.27.0□□.65.2000.00	65	207	18	46	26	41	213	113	35
2016.27.0□□.70.2000.00	70	205	18	48	21	22	214	92	25
2016.27.0□□.75.2000.00	75	202	18	49	17	4	212	102	20

* Retraction force values correspond to the spring-generated retraction force at the working point

The forces F_{h2} , F_{v2} as well as F_{h3} , F_{v3} act on the tool environment at maximum working force F_W .

AERIAL CAM UNIT FCC-LV-C 2016.27.009./011.

FORCE DIAGRAMS

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	0°	21	41	50	66	85	66	50	41
		21	51	63	83	110	83	63	51
		21	62	87	101	143	101	87	62
		21	55	91	116	180	116	91	55
		21	53	66	104	161	104	66	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	0°	21	41	47	47	59	47	47	41
		21	48	50	51	61	51	50	48
		21	47	48	47	57	47	48	47
		21	44	45	44	55	44	45	44
		21	42	42	43	53	43	42	42

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	5°	21	41	49	65	85	65	49	41
		21	50	62	81	109	81	62	50
		21	61	84	100	144	100	84	61
		21	57	86	116	189	116	86	57
		21	53	69	107	167	107	69	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	5°	21	41	49	58	66	58	49	41
		21	50	59	64	71	64	59	50
		21	59	61	61	68	61	61	59
		21	56	57	58	65	58	57	56
		21	53	54	55	63	55	54	53

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	10°	21	40	49	64	85	64	49	40
		21	50	61	80	109	80	61	50
		21	59	81	99	145	99	81	59
		21	58	81	116	197	116	81	58
		21	54	73	110	173	110	73	54

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	10°	21	40	49	64	73	64	49	40
		21	50	61	78	82	78	61	50
		21	59	74	75	79	75	74	59
		21	58	70	71	75	71	70	58
		21	54	66	68	72	68	66	54

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	15°	21	39	48	62	85	62	48	39
		21	49	60	78	109	78	60	49
		21	57	78	98	145	98	78	57
		21	60	77	116	206	116	77	60
		21	54	76	113	180	113	76	54

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	15°	21	39	48	62	81	62	48	39
		21	49	60	78	93	78	60	49
		21	57	78	89	90	89	78	57
		21	60	76	84	85	84	76	60
		21	54	72	81	81	81	72	54

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	20°	21	37	47	61	84	61	47	37
		21	48	59	79	110	79	59	48
		21	57	81	101	150	101	81	57
		21	59	81	117	203	117	81	59
		21	54	76	115	182	115	76	54

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	20°	21	37	47	61	79	61	47	37
		21	48	59	79	100	79	59	48
		21	57	81	95	97	95	81	57
		21	59	80	91	91	91	80	59
		21	54	75	86	87	86	75	54

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	25°	21	35	45	61	83	61	45	35
		21	46	58	79	111	79	58	46
		21	56	84	104	156	104	84	56
		21	57	85	118	201	118	85	57
		21	53	76	117	184	117	76	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
Height 105 mm	25°	21	35	45	61	83	61	45	35
		21	46	58	79	107	79	58	46
		21	56	84	102	103	102	84	56
		21	57	85	98	98	98	85	57
		21	53	76	92	92	92	76	53

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FORCE DIAGRAMS

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
30°	Height 105 mm	21	34	44	60	83	60	44	34
		21	45	57	79	113	79	57	45
		21	56	88	107	161	107	88	56
		21	56	89	119	198	119	89	56
		21	53	76	120	186	120	76	53
		21	53	76	120	186	120	76	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
30°	Height 105 mm	21	34	44	60	83	60	44	34
		21	45	57	79	106	79	57	45
		21	56	88	100	110	100	88	56
		21	56	89	104	105	104	89	56
		21	53	76	98	98	98	76	53
		21	53	76	98	98	98	76	53

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
35°	Height 105 mm	21	32	42	58	79	58	42	32
		21	43	57	79	110	79	57	43
		21	53	80	103	157	103	80	53
		21	56	85	121	203	121	85	56
		21	53	77	124	192	124	77	53
		21	53	77	124	192	124	77	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
35°	Height 105 mm	21	32	42	58	79	58	42	32
		21	43	57	79	110	79	57	43
		21	53	80	103	123	103	80	53
		21	56	85	112	116	112	85	56
		21	53	77	103	108	103	77	53
		21	53	77	103	108	103	77	53

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
40°	Height 105 mm	21	31	41	56	76	56	41	31
		21	41	56	79	107	79	56	41
		21	50	73	100	154	100	73	50
		21	57	81	123	208	123	81	57
		21	53	78	128	198	128	78	53
		21	53	78	128	198	128	78	53

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
40°	Height 105 mm	21	31	41	56	76	56	41	31
		21	41	56	79	107	79	56	41
		21	50	73	100	136	100	73	50
		21	57	81	120	128	120	81	57
		21	53	78	108	118	108	78	53
		21	53	78	108	118	108	78	53

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
45°	Height 105 mm	21	29	39	54	72	54	39	29
		21	40	55	79	105	79	55	40
		21	47	66	97	151	97	66	47
		21	57	77	125	214	125	77	57
		21	52	79	132	204	132	79	52
		21	52	79	132	204	132	79	52

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
45°	Height 105 mm	21	29	39	54	72	54	39	29
		21	40	55	79	105	79	55	40
		21	47	66	97	149	97	66	47
		21	57	77	117	139	117	77	57
		21	52	79	113	128	113	79	52
		21	52	79	113	128	113	79	52

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
50°	Height 105 mm	21	29	39	55	76	55	39	29
		21	37	54	79	112	79	54	37
		21	44	67	103	170	103	67	44
		21	52	73	121	195	121	73	52
		21	47	71	114	173	114	71	47
		21	47	71	114	173	114	71	47

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
50°	Height 105 mm	21	29	39	55	76	55	39	29
		21	37	54	79	112	79	54	37
		21	44	67	103	162	103	67	44
		21	52	73	121	151	121	73	52
		21	47	71	109	137	109	71	47
		21	47	71	109	137	109	71	47

Support via cast shoulder

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
55°	Height 105 mm	21	28	39	56	80	56	39	28
		21	34	54	80	118	80	54	34
		21	41	69	110	190	110	69	41
		21	46	69	117	176	117	69	46
		21	43	63	97	141	97	63	43
		21	43	63	97	141	97	63	43

Support via feather key

		Width 90/115 mm							
		12,5	17,5	17,5	20	17,5	17,5	12,5	
55°	Height 105 mm	21	28	39	56	80	56	39	28
		21	34	54	80	118	80	54	34
		21	41	69	110	175	110	69	41
		21	46	69	117	162	117	69	46
		21	43	63	97	135	97	63	43
		21	43	63	97	135	97	63	43

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FORCE DIAGRAMS

Support via cast shoulder

		Width 90/115 mm						
60°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	56	83	56	40	28
	21	31	53	80	125	80	53	31
	21	38	71	117	209	117	71	38
	21	41	65	113	157	113	65	41
	21	38	54	79	113	79	54	38

Support via feather key

		Width 90/115 mm						
60°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	56	83	56	40	28
	21	31	53	80	125	80	53	31
	21	38	71	117	188	117	71	38
	21	41	65	113	157	113	65	41
	21	38	55	79	110	79	55	38

Support via cast shoulder

		Width 90/115 mm						
65°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	58	87	58	40	28
	21	31	54	80	126	80	54	31
	21	38	72	118	207	118	72	38
	21	41	65	112	156	112	65	41
	21	38	54	79	113	79	54	38

Support via feather key

		Width 90/115 mm						
65°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	58	87	58	40	28
	21	31	54	80	126	80	54	31
	21	38	72	118	190	118	72	38
	21	41	65	112	156	112	65	41
	21	38	54	79	113	79	54	38

Support via cast shoulder

		Width 90/115 mm						
70°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	61	91	61	40	28
	21	31	54	81	127	81	54	31
	21	38	72	119	205	119	72	38
	21	42	65	111	155	111	65	42
	21	37	54	78	117	78	54	37

Support via feather key

		Width 90/115 mm						
70°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	28	40	61	91	61	40	28
	21	31	54	81	127	81	54	31
	21	38	72	119	190	119	72	38
	21	42	65	111	155	111	65	42
	21	37	54	78	117	78	54	37

Support via cast shoulder

		Width 90/115 mm						
75°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	27	40	63	94	63	40	27
	21	31	54	81	128	81	54	31
	21	38	73	121	202	121	73	38
	21	42	65	110	154	110	65	42
	21	36	53	78	120	78	53	36

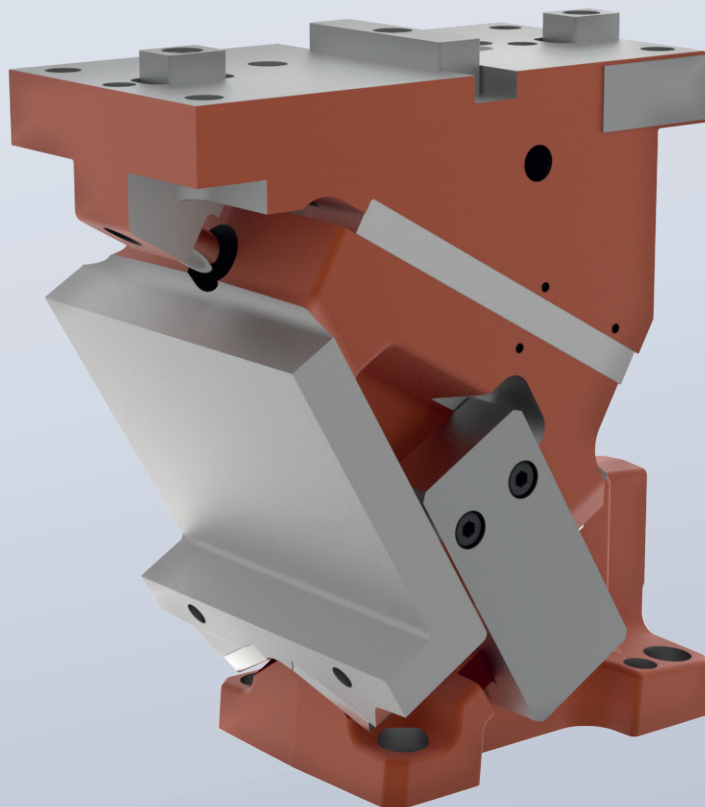
Support via feather key

		Width 90/115 mm						
75°		12,5	17,5	17,5	20	17,5	17,5	12,5
Height 105 mm	21	27	40	63	94	63	40	27
	21	31	54	81	128	81	54	31
	21	38	73	121	190	121	73	38
	21	42	65	110	154	110	65	42
	21	36	53	78	120	78	53	36

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

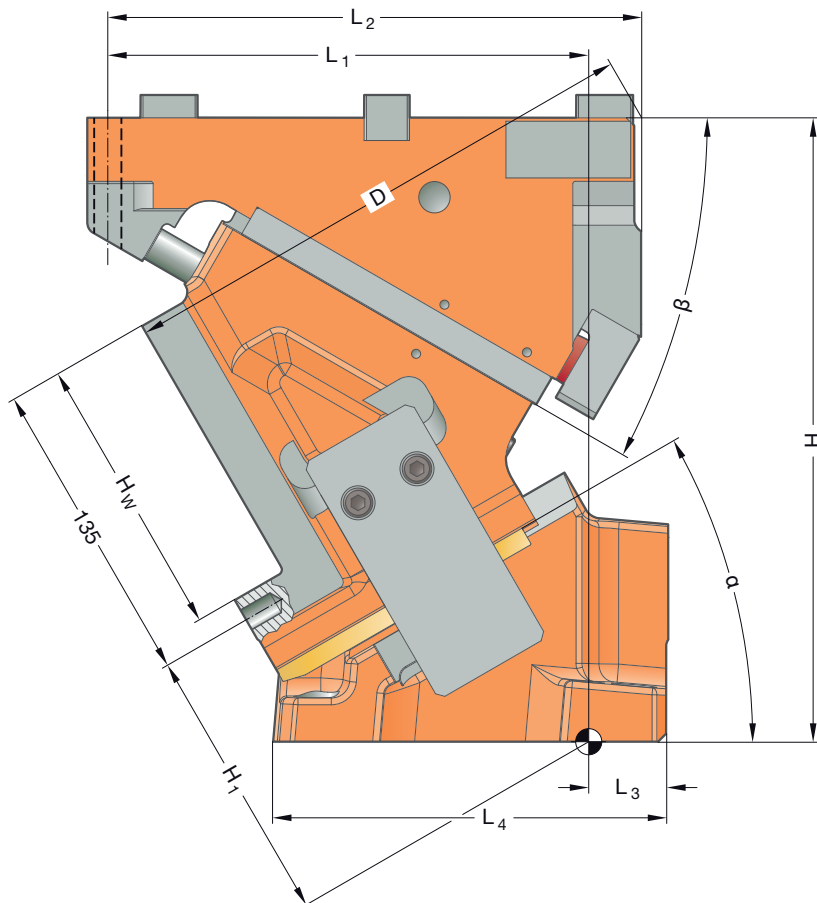
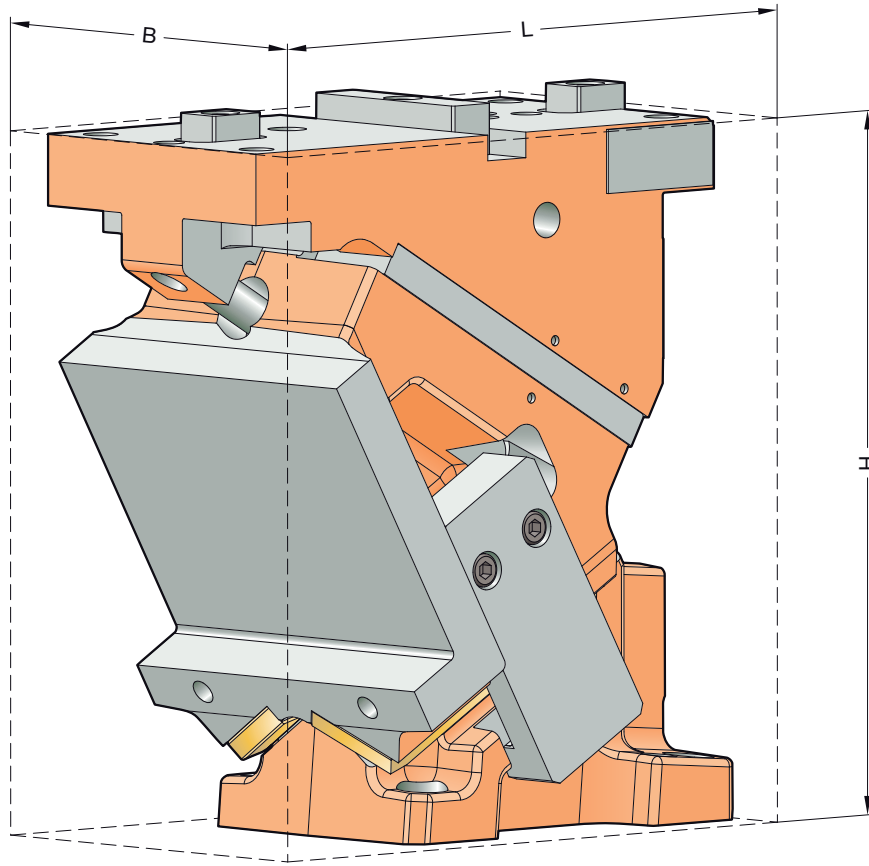
Working width: 125/160 mm

Performance class: 250 kN



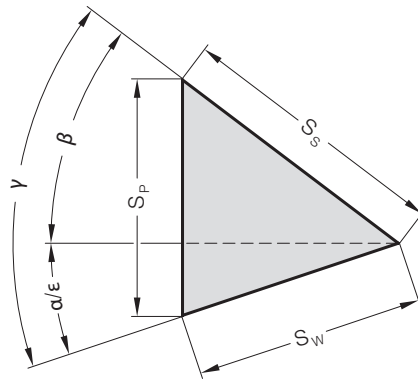
AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

SIZE TABLE



AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

SIZE TABLE



Order No	L [mm]	B [mm]	H [mm]	H ₁ [mm]	H _W [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	L ₄ [mm]	D [mm]	α [°]	β [°]	S _W [mm]	S _S [mm]	S _P [mm]
2016.27.012.00.2000.00	242	125	275	75	125	164	217	35	224	214,5	0	50	28,3	44	33,7
2016.27.016.00.2000.00		160													
2016.27.012.05.2000.00	240	125	275	85,139	125	182	227	35	220	226,57	5	45	31,2	44	33,8
2016.27.016.05.2000.00		160													
2016.27.012.10.2000.00	233	125	275	99,539	125	180	220	35	224	236,51	10	40	34,2	44	34,2
2016.27.016.10.2000.00		160													
2016.27.012.15.2000.00	250	125	275	109,313	125	196	225	35	221	243,69	15	35	37,3	44	34,9
2016.27.016.15.2000.00		160													
2016.27.012.20.2000.00	233	125	275	105,345	125	182	220	35	185	232,52	20	40	35,9	44	40,6
2016.27.016.20.2000.00		160													
2016.27.012.25.2000.00	251	125	275	114,287	125	198	225	35	182	236,89	25	35	39,8	44	42,0
2016.27.016.25.2000.00		160													
2016.27.012.30.2000.00	256	125	275	122,031	125	212	235	35	174	236,32	30	30	42,0	42	42,0
2016.27.016.30.2000.00		160													
2016.27.012.35.2000.00	278	125	275	130,593	125	225	235	35	171	235,87	35	25	46,5	42	44,4
2016.27.016.35.2000.00		160													
2016.27.012.40.2000.00	244	125	275	113,235	125	180	235	35	137	257,17	40	30	47,5	42	51,5
2016.27.016.40.2000.00		160													
2016.27.012.45.2000.00	253	125	275	118,761	125	194	235	35	135	254	45	25	53,8	42	55,8
2016.27.016.45.2000.00		160													
2016.27.012.50.2000.00	247	125	275	116,152	125	201	230	35	130	241,87	50	20	48,2	33	48,2
2016.27.016.50.2000.00		160													
2016.27.012.55.2000.00	265	125	275	114,543	125	213	230	35	122	238,04	55	15	55,6	33	54,1
2016.27.016.55.2000.00		160													
2016.27.012.60.2000.00	262	125	275	103,608	125	219	230	32	111	247,11	60	20	54,5	29	57,1
2016.27.016.60.2000.00		160													
2016.27.012.65.2000.00	280	125	275	101,09	125	231	230	32	104	241,75	65	15	66,3	29	67,6
2016.27.016.65.2000.00		160													
2016.27.012.70.2000.00	280	125	275	96,254	125	236	224	32	99	232,79	70	10	63,3	22	63,3
2016.27.016.70.2000.00		160													
2016.27.012.75.2000.00	292	125	275	87,963	125	244	220	30	86	228,18	75	5	69,3	18	68,5
2016.27.016.75.2000.00		160													

Fastening

Hexagon socket head cap screws DIN EN ISO 4762 / Strength class min. 8.8
Dowel pins DIN EN ISO 8735

Cam base:

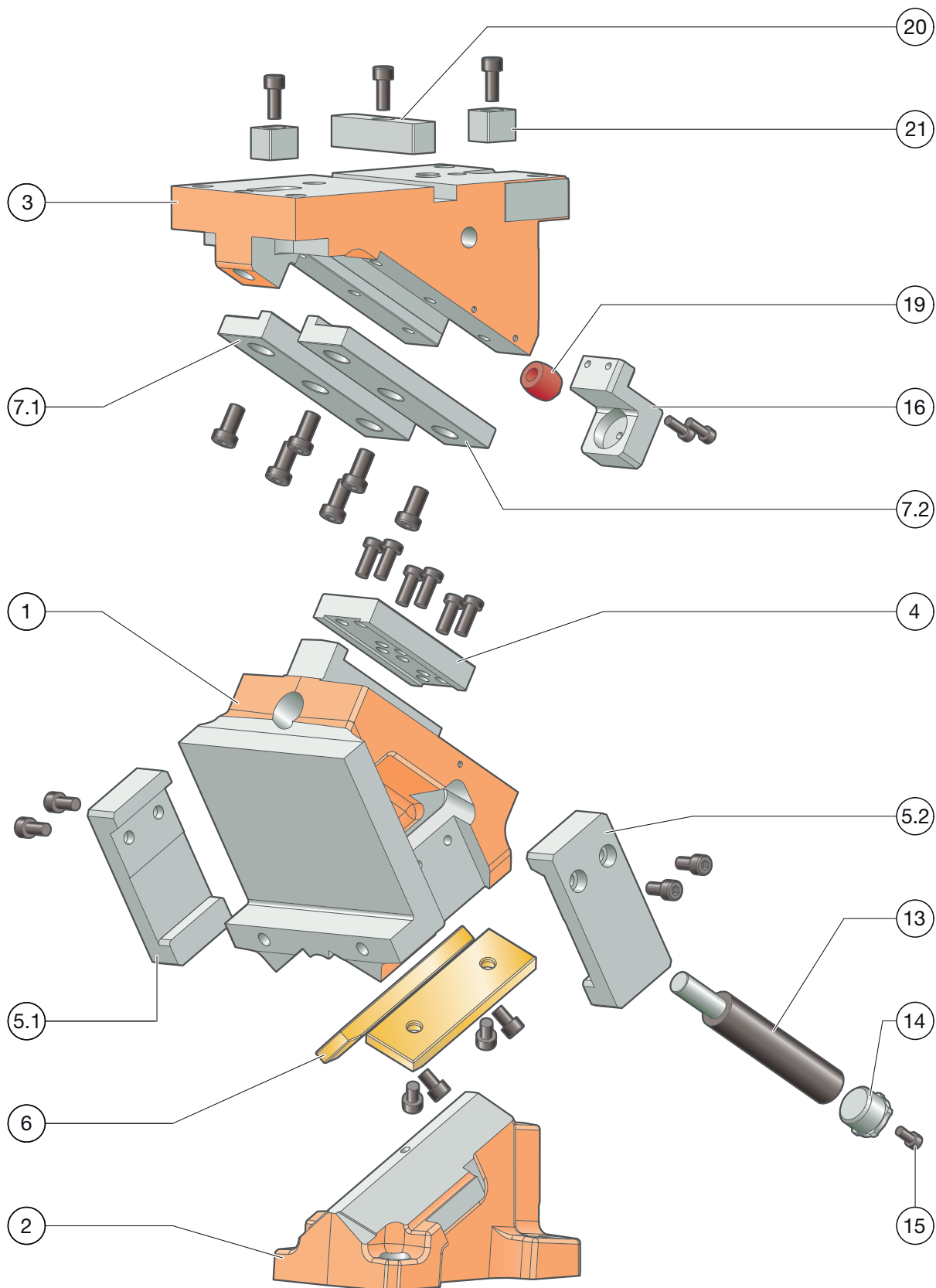
4 × M12
2 × ø12

Driver:

4 × M12
2 × ø12

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

EXPLODED VIEW



AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

PARTS LIST

Item No.	Pcs.	Designation	Material	tuned	Spare part
1	1	Cam slider	EN-JS-1060	--	--
2	1	Driver	EN-JS-1060	--	--
3	1	Cam base	St52-3	--	--
4	1	Centre guide	1.2379	--	x
5.1	1	mechanical retraction, left	1.1191 with sinter layer	x	x
5.2	1	mechanical retraction, right	1.1191 with sinter layer	x	x
6	2	Sliding plate	Bronze with solid lubricant	--	x
7.1	1	L-guide, left	1.1191 with sinter layer	x	x
7.2	1	L-guide, right	1.1191 with sinter layer	x	x
8					
9					
10					
11					
12					
13	1	Gas spring	2487.12.00.320.□□□	--	x
14	1	Locking tappet	1.7131	--	x
15	1	Secure screw		--	x
16	1	Slide stop	1.1191	--	x
17 (not shown)	1	Spacer		--	x
18 (not shown)	1	Lockout system	1.1191	--	x
19	1	Damper	Elastomer	--	x
20	1	Feather key (T-nut)	1.1191	--	x
21	2	Feather key (T-nut)	1.1191	--	x
22					
23					
24* (not shown)	1	Spacer	1.1191	--	x

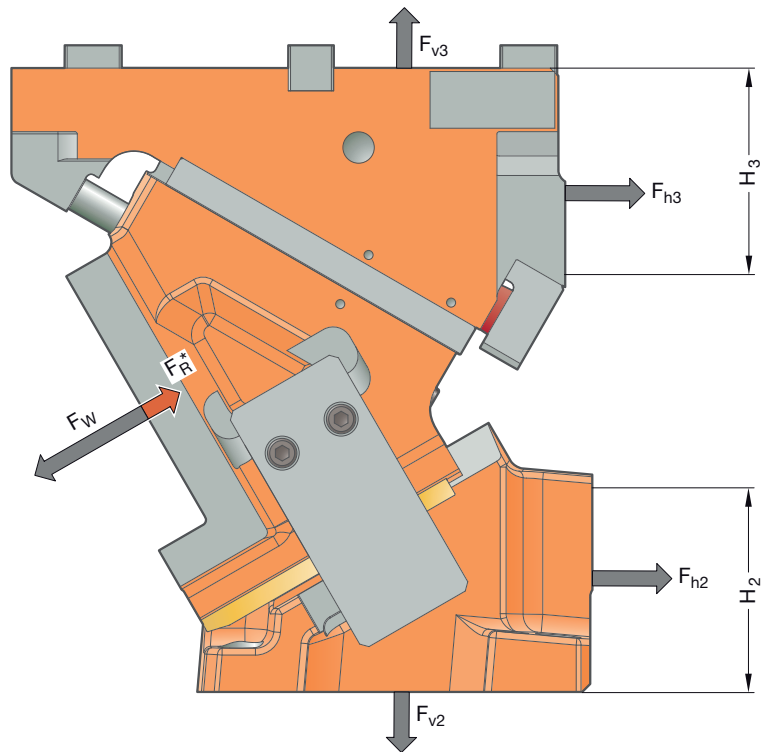
* not installed at all angles

For inquiries or when ordering spare parts (x), we require the following data:

- Cam unit order no.
- Cam unit serial number
- Item No. / Designation / Spare part

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

SYSTEM AND SURROUNDING FORCES



All force specifications in this catalogue of the Series 2016.26 are pre-assigned values that provide a higher safety factor.

Order No	α [°]	F_w [kN]	F_R^* [kN]	F_{h2} [kN]	F_{v2} [kN]	F_{h3} [kN]	F_{v3} [kN]	H_2 [mm]	H_3 [mm]
2016.27.0□□.00.2000.00	0	259	28	-19	268	278	268	35	140
2016.27.0□□.05.2000.00	5	264	28	5	274	258	297	49	125
2016.27.0□□.10.2000.00	10	270	28	29	279	237	326	57	105
2016.27.0□□.15.2000.00	15	275	28	54	280	211	351	70	95
2016.27.0□□.20.2000.00	20	269	28	53	184	200	276	71	105
2016.27.0□□.25.2000.00	25	262	28	67	174	171	284	85	95
2016.27.0□□.30.2000.00	30	266	28	83	170	148	303	96	80
2016.27.0□□.35.2000.00	35	278	28	102	169	126	329	111	65
2016.27.0□□.40.2000.00	40	284	28	77	106	141	288	90	80
2016.27.0□□.45.2000.00	45	285	28	86	99	115	301	100	65
2016.27.0□□.50.2000.00	50	292	28	97	93	91	317	115	50
2016.27.0□□.55.2000.00	55	296	28	106	86	64	328	125	40
2016.27.0□□.60.2000.00	60	296	28	62	42	86	298	110	50
2016.27.0□□.65.2000.00	65	291	28	65	36	58	300	125	40
2016.27.0□□.70.2000.00	70	289	28	67	30	32	301	130	30
2016.27.0□□.75.2000.00	75	280	28	67	23	5	294	140	25

* Retraction force values correspond to the spring-generated retraction force at the working point

The forces F_{h2} , F_{v2} as well as F_{h3} , F_{v3} act on the tool environment at maximum working force F_w .

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

FORCE DIAGRAMS

Support via cast shoulder

		Width 125/160 mm						
0°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	57	68	87	119	87	68	57
	25	69	83	104	153	104	83	69
	25	87	104	141	196	141	104	87
	25	117	138	186	259	186	138	117
	25	111	132	165	251	165	132	111

Support via feather key

		Width 125/160 mm						
0°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	48	53	63	75	63	53	48
	25	51	57	66	77	66	57	51
	25	49	54	62	73	62	54	49
	25	47	52	59	70	59	52	47
	25	46	49	57	68	57	49	46

Support via cast shoulder

		Width 125/160 mm						
5°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	57	68	87	119	87	68	57
	25	69	84	104	153	104	84	69
	25	87	105	139	197	139	105	87
	25	118	139	187	264	187	139	118
	25	113	131	171	257	171	131	113

Support via feather key

		Width 125/160 mm						
5°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	50	58	70	80	70	58	50
	25	54	61	73	82	73	61	54
	25	53	60	69	78	69	60	53
	25	52	58	67	75	67	58	52
	25	50	56	65	73	65	56	50

Support via cast shoulder

		Width 125/160 mm						
10°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	57	68	87	119	87	68	57
	25	68	84	103	153	103	84	68
	25	87	106	136	198	136	106	87
	25	120	139	187	270	187	139	120
	25	115	131	177	264	177	131	115

Support via feather key

		Width 125/160 mm						
10°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	53	62	77	86	77	62	53
	25	56	66	80	87	80	66	56
	25	57	65	77	84	77	65	57
	25	56	64	75	81	75	64	56
	25	55	62	73	79	73	62	55

Support via cast shoulder

		Width 125/160 mm						
15°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	57	68	87	119	87	68	57
	25	68	85	103	153	103	85	68
	25	88	106	134	199	134	106	88
	25	122	139	188	275	188	139	122
	25	117	131	183	270	183	131	117

Support via feather key

		Width 125/160 mm						
15°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	56	62	84	91	84	62	56
	25	59	71	87	92	87	71	59
	25	60	71	84	89	84	71	60
	25	60	70	83	87	83	70	60
	25	60	69	81	84	81	69	60

Support via cast shoulder

		Width 125/160 mm						
20°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	54	66	86	119	86	66	54
	25	66	82	104	154	104	82	66
	25	86	104	133	205	133	104	86
	25	117	136	184	269	184	136	117
	25	111	128	176	264	176	128	111

Support via feather key

		Width 125/160 mm						
20°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	54	66	83	96	83	66	54
	25	62	76	94	98	94	76	62
	25	64	76	91	95	91	76	64
	25	65	76	90	94	90	76	65
	25	64	75	88	92	88	75	64

Support via cast shoulder

		Width 125/160 mm						
25°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	52	63	86	119	86	63	52
	25	64	79	104	156	104	79	64
	25	83	103	132	211	132	103	83
	25	112	133	181	262	181	133	112
	25	106	125	169	257	169	125	106

Support via feather key

		Width 125/160 mm						
25°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	52	63	86	101	86	63	52
	25	60	74	101	105	101	74	60
	25	67	82	98	101	98	82	67
	25	69	82	98	101	98	82	69
	25	68	81	96	99	96	81	68

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

FORCE DIAGRAMS

Support via cast shoulder

30°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	51	63	88	123	88	63	51
	25	64	79	109	163	109	79	64
	25	85	105	135	225	135	105	85
	25	110	134	184	266	184	134	110
	25	104	127	168	259	168	127	104

Support via feather key

30°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	51	63	88	107	88	63	51
	25	63	78	100	111	100	78	63
	25	71	87	106	108	106	87	71
	25	73	88	106	108	106	88	73
	25	72	87	104	106	104	87	72

35°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	52	65	94	132	94	65	52
	25	66	82	117	177	117	82	66
	25	88	110	144	248	144	110	88
	25	113	140	193	278	193	140	113
	25	105	132	173	270	173	132	105

35°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	52	65	94	109	94	65	52
	25	64	82	109	113	109	82	64
	25	74	92	109	112	109	92	74
	25	79	95	111	114	111	95	79
	25	77	93	109	112	109	93	77

40°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	51	66	98	139	98	66	51
	25	67	84	123	188	123	84	67
	25	90	115	151	268	151	115	90
	25	113	144	199	284	199	144	113
	25	104	136	174	276	174	136	104

40°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	51	66	96	111	96	66	51
	25	65	84	110	116	110	84	65
	25	78	98	112	117	112	98	78
	25	84	101	115	120	115	101	84
	25	83	100	114	118	114	100	83

45°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	49	65	101	144	101	65	49
	25	67	83	128	195	128	83	67
	25	91	116	155	284	155	116	91
	25	110	144	201	285	201	144	110
	25	100	137	171	277	171	137	100

45°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	49	65	96	113	96	65	49
	25	66	83	110	118	110	83	66
	25	81	103	115	122	115	103	81
	25	89	107	120	126	120	107	89
	25	88	106	118	124	118	106	88

50°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	48	63	99	140	99	63	48
	25	65	83	130	196	130	83	65
	25	89	116	155	288	155	116	89
	25	105	135	190	292	190	135	105
	25	93	122	156	271	156	122	93

50°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	48	63	98	123	98	63	48
	25	65	83	119	132	119	83	65
	25	81	105	136	145	136	105	81
	25	96	117	139	152	139	117	96
	25	84	112	129	137	129	112	84

55°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	60	97	136	97	60	47
	25	63	82	131	196	131	82	63
	25	87	115	157	291	157	115	87
	25	98	126	177	296	177	126	98
	25	84	106	141	271	141	106	84

55°

		Width 125/160 mm						
		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	60	97	123	97	60	47
	25	63	82	131	146	131	82	63
	25	87	115	145	169	145	115	87
	25	95	117	158	178	158	117	95
	25	84	106	128	149	128	106	84

AERIAL CAM UNIT FCC-LV-C 2016.27.012./016.

FORCE DIAGRAMS

Support via cast shoulder

Width 125/160 mm

60°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	46	56	95	133	95	56	46
	25	62	83	133	198	133	83	62
	25	86	115	160	289	160	115	86
	25	92	117	165	296	165	117	92
	25	75	88	124	268	124	88	75

Support via feather key

Width 125/160 mm

60°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	46	55	92	130	92	55	46
	25	60	80	130	161	130	80	60
	25	84	112	155	192	155	112	84
	25	89	113	160	203	160	113	89
	25	73	86	121	162	121	86	73

Width 125/160 mm

65°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	46	56	89	126	89	56	46
	25	63	83	131	192	131	83	63
	25	86	118	165	291	165	118	86
	25	94	118	167	289	167	118	94
	25	76	93	126	247	126	93	76

Width 125/160 mm

65°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	46	56	89	126	89	56	46
	25	63	83	131	176	131	83	63
	25	86	118	165	258	165	118	86
	25	94	118	167	252	167	118	94
	25	76	93	126	195	126	93	76

Width 125/160 mm

70°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	57	86	121	86	57	47
	25	64	85	129	190	129	85	64
	25	89	121	171	289	171	121	89
	25	97	121	170	275	170	121	97
	25	78	99	129	216	129	99	78

Width 125/160 mm

70°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	57	86	121	86	57	47
	25	64	85	129	190	129	85	64
	25	89	121	171	260	171	121	89
	25	97	121	170	258	170	121	97
	25	78	99	129	210	129	99	78

Width 125/160 mm

75°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	57	79	111	79	57	47
	25	64	85	124	181	124	85	64
	25	88	121	174	280	174	121	88
	25	97	121	170	254	170	121	97
	25	78	103	129	186	129	103	78

Width 125/160 mm

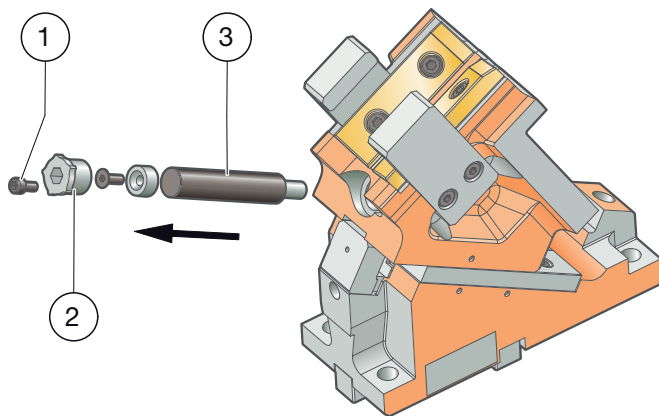
75°		17,5	25	25	25	25	25	17,5
Height 125 mm	25	47	57	79	111	79	57	47
	25	64	85	124	181	124	85	64
	25	88	121	174	258	174	121	88
	25	97	121	170	254	170	121	97
	25	78	103	129	186	129	103	78

ASSEMBLY INSTRUCTIONS



AERIAL CAM UNIT FCC-LV-C 2016.27.

ASSEMBLY INSTRUCTIONS

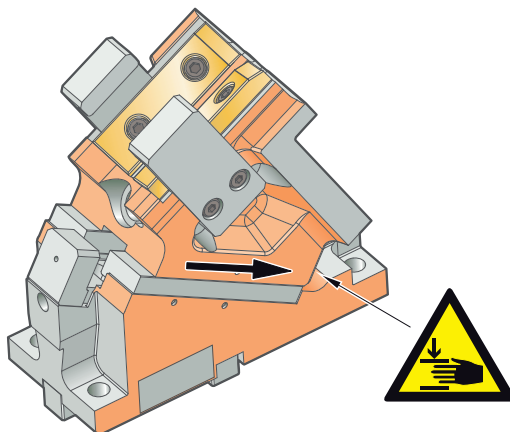


STEP 1

- Remove secure screw **(1)**.
- Unfasten locking screw **(2)** and remove gas spring **(3)** from the mount.

Caution

The gas spring may only be removed if the spring itself is released. After removing the locking screw for the gas spring, note that there is a risk of crushing between the cam slide unit body and the cam slide unit bed due to independent movement of the cam slide unit body.

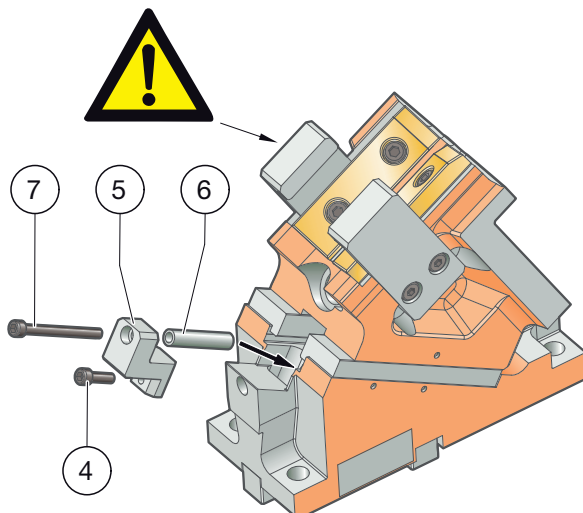


STEP 2

- Slide the cam unit driver into the front position

Caution

Risk of crushing between the cam unit driver and the cam unit base by movement of the cam unit driver.



STEP 3

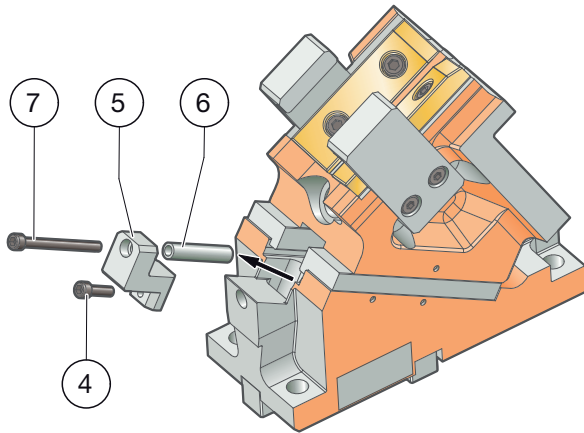
- Unfasten screw **(4)** and remove the cam stop
- Insert Lock-Out system **(5)** and secure with the screw **(4)**
- Insert Lock-Out sleeve **(6)** and secure the cam slider with the screw **(7)**

Caution

In the classic tool setup process (pressing the cam driver in the die), the positive return left and right must additionally be removed in order to avoid damaging the cam unit, cam driver and die.

AERIAL CAM UNIT FCC-LV-C 2016.27.

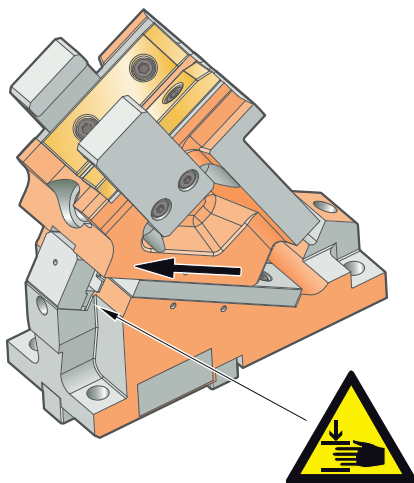
ASSEMBLY INSTRUCTIONS



STEP 4

Restore the cam unit function after completion of the work (setup, work surface machining).

- Remove screw **(7)**
- Remove Lock-Out sleeve **(6)**
- Remove screw **(4)** and dismantle Lock-Out system **(5)**
- Insert the cam slide stop and fix with the screw **(4)**

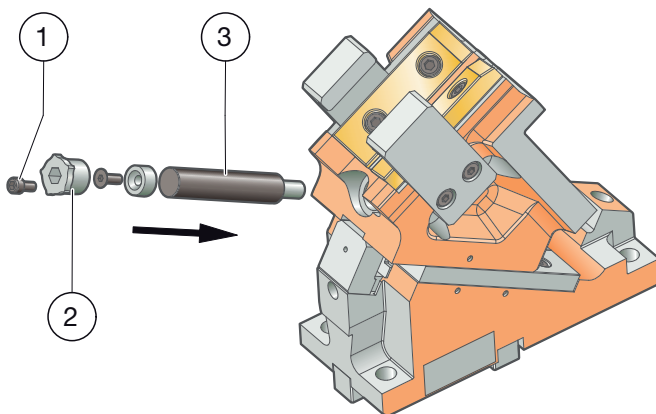


STEP 5

- Slide the cam unit Driver backwards

Caution

Risk of crushing between the cam slider and the cam stop due to movement of the cam slider.



STEP 6

- Insert gas spring **(3)** and secure by using the locking screw **(2)**
- Secure lock screw with secure screw **(1)**.

Screws must be secured against loosening by means of adhesive or suitable lock washers.

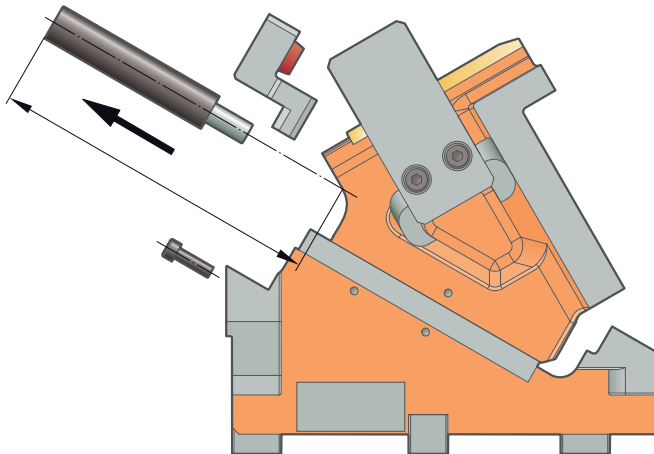
AERIAL CAM UNIT FCC-LV-C 2016.27.

ASSEMBLY IN THE TOOL

Series 2016.27 cam slide units are designed that way, that the screws and pins for positioning and fixing the cam slide unit components in the tool, are accessible in the open position of the cam unit (cam stop has to be removed in some cases).

This access can be restricted or completely prevented by constructions on the cam slide unit working surface.

In such cases, it is possible to disassemble / assemble the populated cam slide unit:

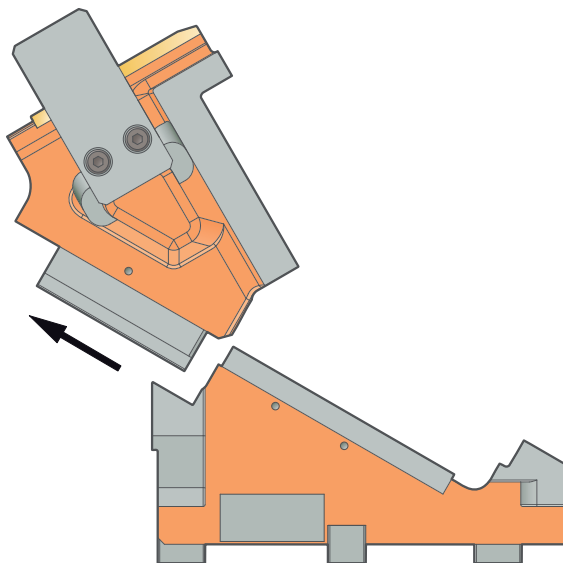


STEP 1

- Remove the gas spring and the cam stop before disassembling the cam slide unit.

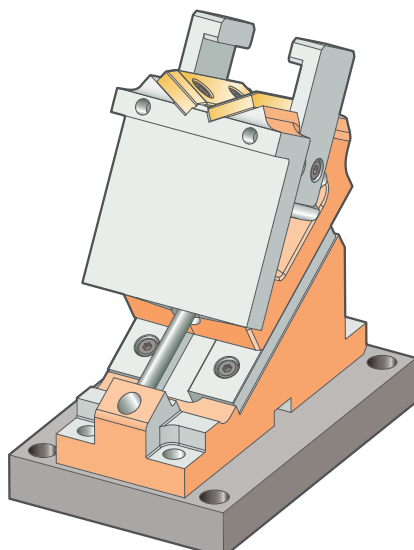
Caution

The gas spring may only be removed if the spring itself is released. After removing the locking tappet for the gas spring, note that there is a risk of crushing between the cam slider and the cam unit base due to independent movement of the cam slider.



STEP 2

- Remove the populated cam slide unit towards the back. The cam unit base can remain in the upper die.



In the event of installation space problems in the tool, an additional mounting board can be used as an alternative. The cam unit is positioned and fixed on this mounting plate, the options for positioning and fastening to the tool are located outside the compact cam slide unit structure, and are therefore easily accessible from above for the necessary fitting aids.

Mounting plates are to be provided by the tool shop if necessary, as they are not included as standard with FIBRO cam units.

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