



Cam Units CHW
Schieber CHW
Unità a Camme CHW



MCR[®]
STANDARD DIE COMPONENTS



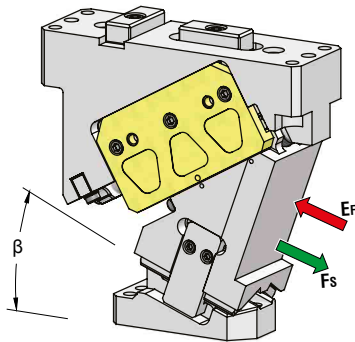
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 ⁶ cycles (kN)	Extraction Force (kN)	Page number
	β				F _s	E _f	
CHW065	0°÷75° (5° steps)	65	190÷205	65x95	210÷230	5,6÷6,8	774
CHW085	0°÷75° (5° steps)	85	190÷205	65x95	210÷230	5,6÷6,8	778
CHW090	0°÷75° (5° steps)	90	205÷240	90x100	250÷320	11÷13,2	782
CHW110	0°÷75° (5° steps)	110	205÷240	90x100	250÷320	11÷13,2	786



Precision and accurate dimensions through very strict quality guidelines



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β	S	F _s	E _F Gas Spring
CHW065.00	0°	28,9	210	5,6
CHW065.05	5°	31,9	212	5,6
CHW065.10	10°	35	214	5,8
CHW065.15	15°	38,16	214	5,8
CHW065.20	20°	41,47	216	6,1
CHW065.25	25°	45	216	6,1
CHW065.30	30°	48,83	218	6,3
CHW065.35	35°	53,06	218	6,3
CHW065.40	40°	57,85	220	6,3
CHW065.45	45°	63,4	222	6,5
CHW065.50	50°	46,6	222	6,5
CHW065.55	55°	52,3	224	6,5
CHW065.60	60°	46	226	6,6
CHW065.65	65°	54,4	228	6,6
CHW065.70	70°	39,5	230	6,8
CHW065.75	75°	52,16	230	6,8



Art.	Work Angle = 5°
CHW065.	05

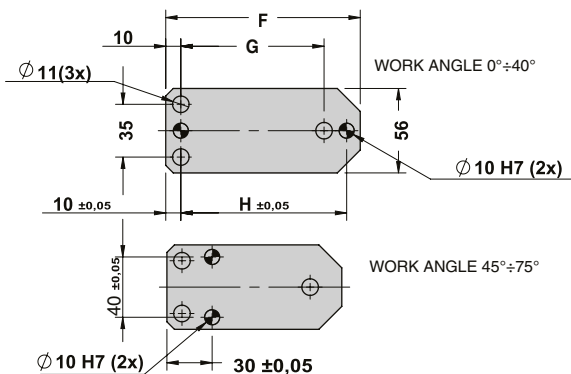
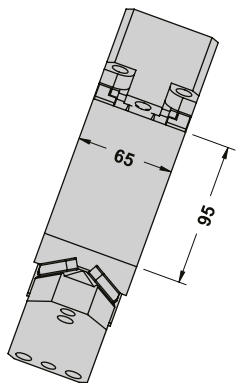
OMCR CODE	Work Angle	Overall Dimensions (mm)									
	β	A	B	C	D	E	F	G	H	I	J
CHW065.00	0°	170,88	55,77	44	180	200	136	95	115	164	183
CHW065.05	5°	179,54	57,5	55	175	200	120	80	100	173	191
CHW065.10	10°	179,7	59,37	40	175	205	135	100	115	175	195
CHW065.15	15°	186,81	59,53	40	160	200	120	85	100	183	201
CHW065.20	20°	190,11	69,84	35	164	205	129	95	110	190	208
CHW065.25	25°	194,23	68,75	30	154	195	124	80	100	195	213
CHW065.30	30°	195,12	71,6	25	154	195	129	90	105	195	213
CHW065.35	35°	195,51	75,18	10	130	190	120	80	95	200	218
CHW065.40	40°	194,77	85,49	-	120	195	120	80	95	197	215
CHW065.45	45°	193,55	86,14	-	116	195	116	85	-	197	215
CHW065.50	50°	165,18	94,49	-21	79	190	100	60	-	172	190
CHW065.55	55°	175,74	120,29	-8	82	200	90	45	-	172	190
CHW065.60	60°	181,59	120,71	-5	80	200	85	50	-	172	190
CHW065.65	65°	180,09	131,37	-5	80	195	85	40	-	172	190
CHW065.70	70°	183	142,17	-5	80	200	85	36	-	172	190
CHW065.75	75°	183,62	144,44	-10	76	190	86	45	-	172	190



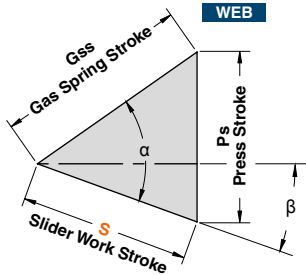


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

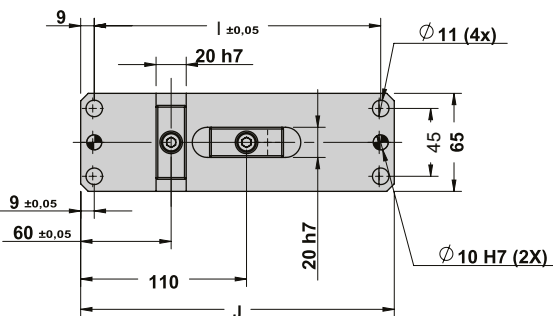
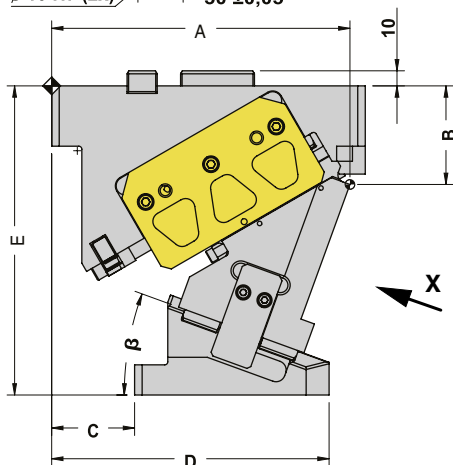


CAM DIAGRAM

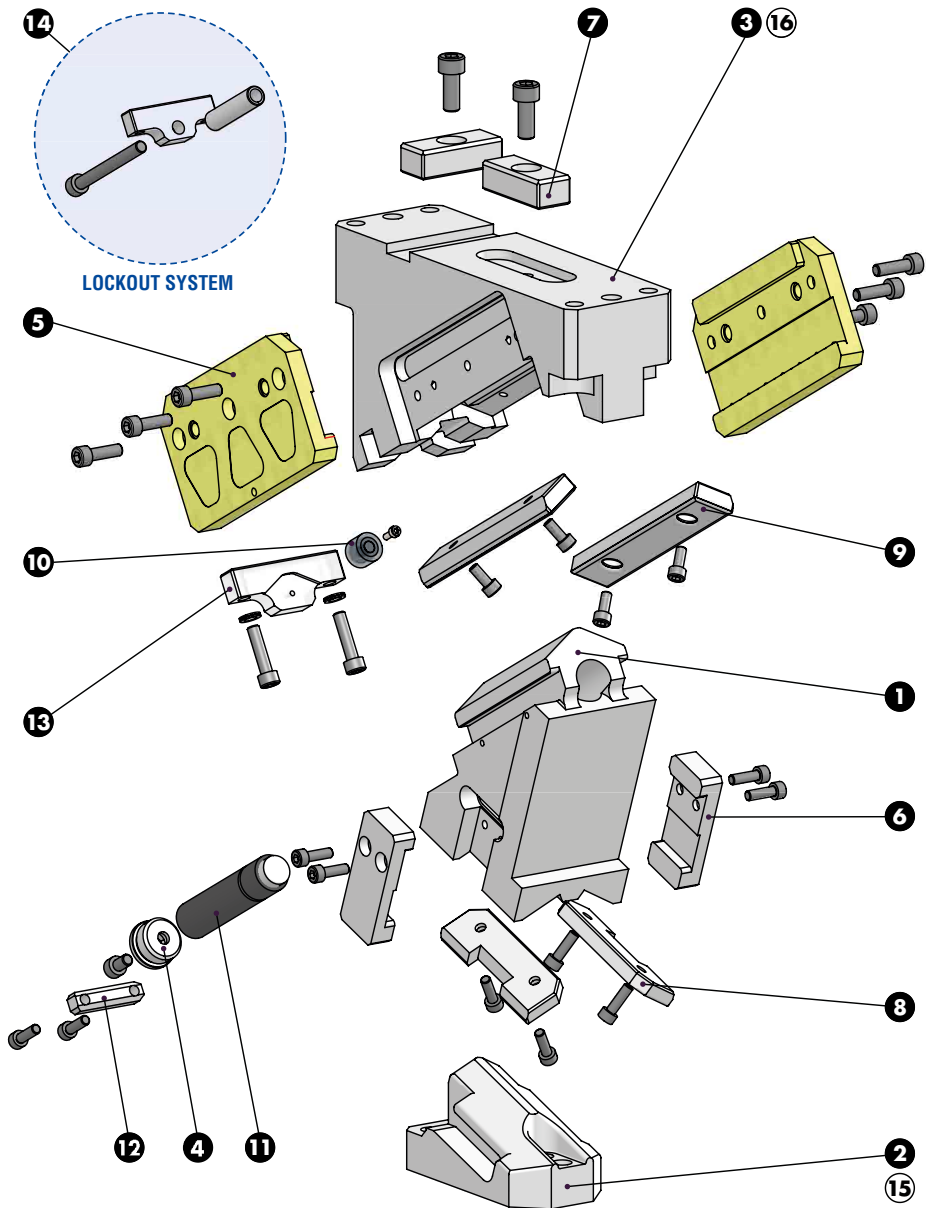


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
β	α	S	Ps	Gss

0°	50°	28,9	34,5	45
5°	50°	31,9	34,5	45
10°	50°	35	35	45
15°	50°	38,16	35,69	45
20°	50°	41,47	36,68	45
25°	50°	45	38	45
30°	50°	48,83	39,8	45
35°	50°	53,06	42,08	45
40°	50°	57,85	45	45
45°	50°	63,4	48,75	45
50°	50°	46,6	35,75	30
55°	55°	52,3	42,85	30
60°	60°	46	39,8	23
65°	65°	54,4	49,3	23
70°	70°	39,5	37	13,5
75°	75°	52,16	50,4	13,5



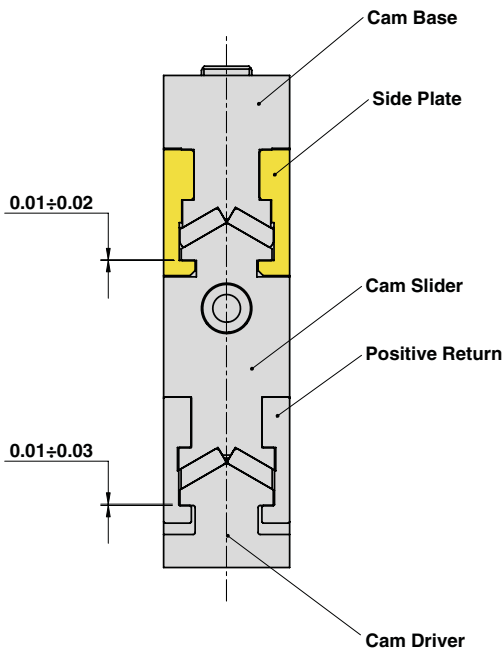
Cam Units CHW

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



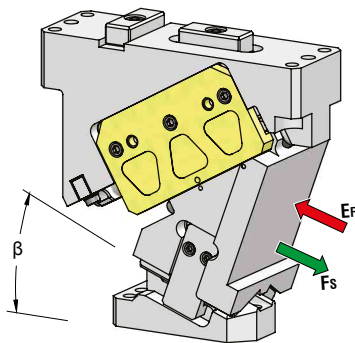
PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	1
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	LOCKOUT SYSTEM	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M10 DIN 912	-	3
16	Cam Base Fixing Screws M10 DIN 912	-	4

Cam Units CHW



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β	S	F _s	E _F Gas Spring
CHW085.00	0°	28,9	210	5,6
CHW085.05	5°	31,9	212	5,6
CHW085.10	10°	35	214	5,8
CHW085.15	15°	38,16	214	5,8
CHW085.20	20°	41,47	216	6,1
CHW085.25	25°	45	216	6,1
CHW085.30	30°	48,83	218	6,3
CHW085.35	35°	53,06	218	6,3
CHW085.40	40°	57,85	220	6,3
CHW085.45	45°	63,4	222	6,5
CHW085.50	50°	46,6	222	6,5
CHW085.55	55°	52,3	224	6,5
CHW085.60	60°	46	226	6,6
CHW085.65	65°	54,4	228	6,6
CHW085.70	70°	39,5	230	6,8
CHW085.75	75°	52,16	230	6,8



Art.	Work Angle = 5°
CHW085.	05

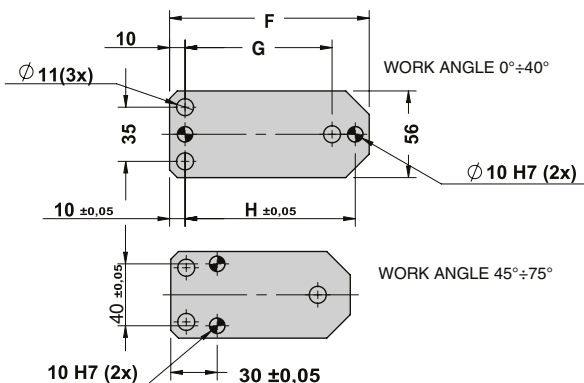
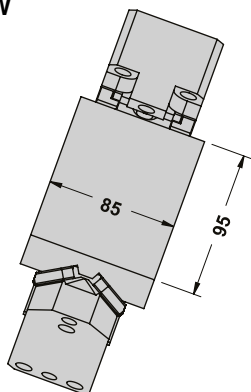
OMCR CODE	Work Angle	Overall Dimensions (mm)									
	β	A	B	C	D	E	F	G	H	I	J
CHW085.00	0°	170,88	55,77	44	180	200	136	95	115	164	183
CHW085.05	5°	179,54	57,5	55	175	200	120	80	100	173	191
CHW085.10	10°	179,7	59,37	40	175	205	135	100	115	175	195
CHW085.15	15°	186,81	59,53	40	160	200	120	85	100	183	201
CHW085.20	20°	190,11	69,84	35	164	205	129	95	110	190	208
CHW085.25	25°	194,23	68,75	30	154	195	124	80	100	195	213
CHW085.30	30°	195,12	71,6	25	154	195	129	90	105	195	213
CHW085.35	35°	195,51	75,18	10	130	190	120	80	95	200	218
CHW085.40	40°	194,77	85,49	-	120	195	120	80	95	197	215
CHW085.45	45°	193,55	86,14	-	116	195	116	85	-	197	215
CHW085.50	50°	165,18	94,49	-21	79	190	100	60	-	172	190
CHW085.55	55°	175,74	120,29	-8	82	200	90	45	-	172	190
CHW085.60	60°	181,59	120,71	-5	80	200	85	50	-	172	190
CHW085.65	65°	180,09	131,37	-5	80	195	85	40	-	172	190
CHW085.70	70°	183	142,17	-5	80	200	85	36	-	172	190
CHW085.75	75°	183,62	144,44	-10	76	190	86	45	-	172	190



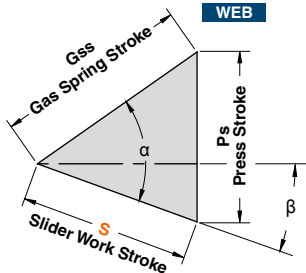


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

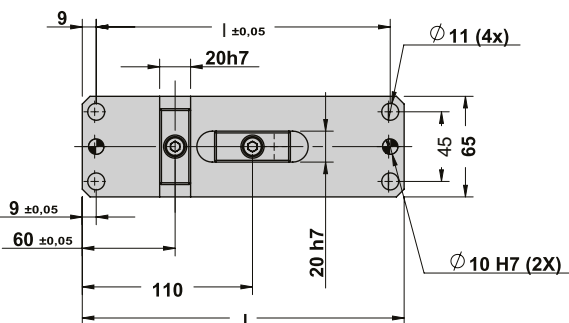
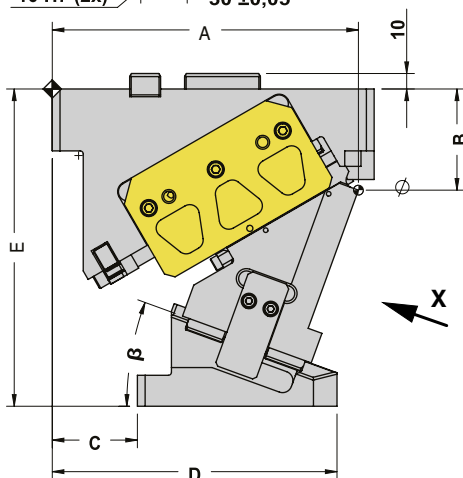


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
β	α	S	Ps	Gss

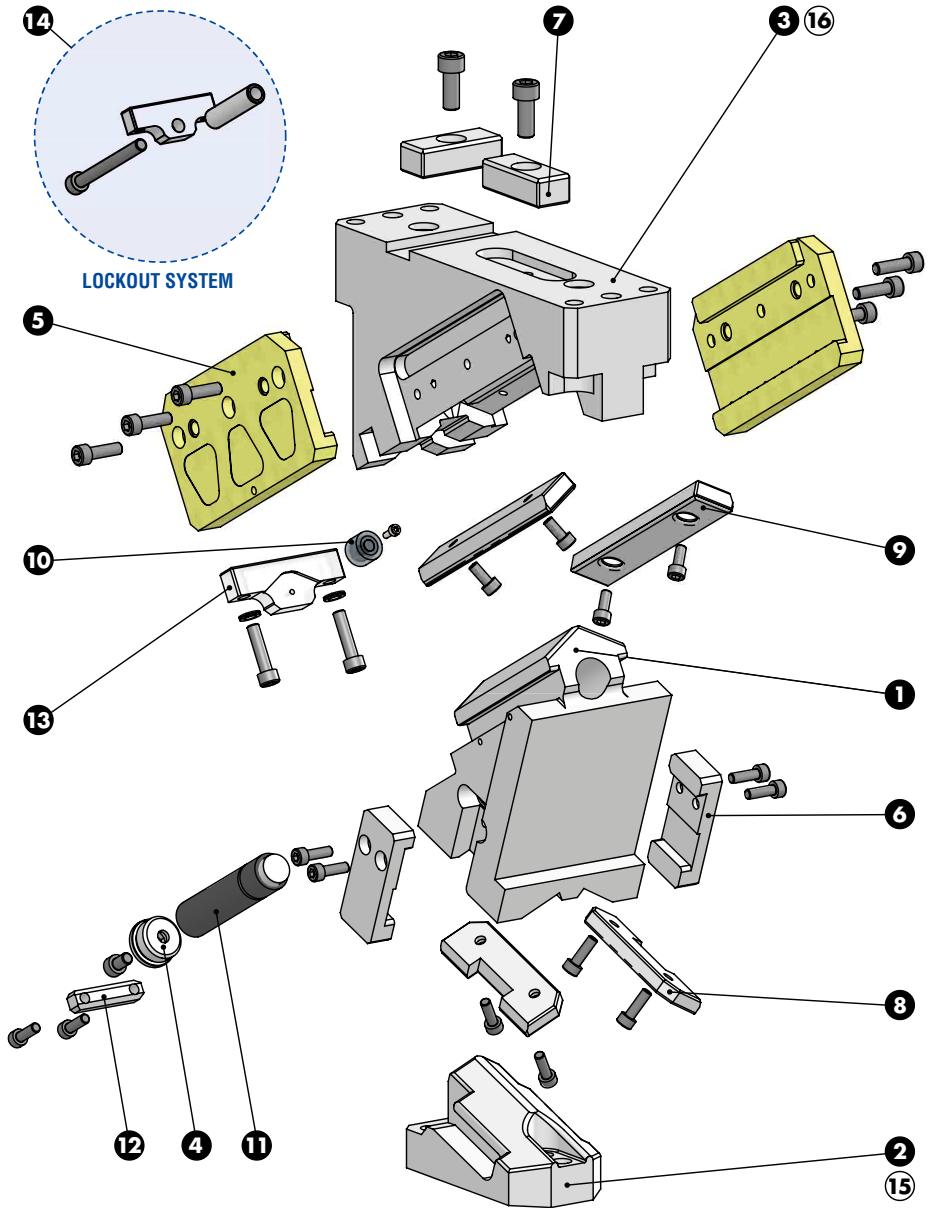
0°	50°	28,9	34,5	45
5°	50°	31,9	34,5	45
10°	50°	35	35	45
15°	50°	38,16	35,69	45
20°	50°	41,47	36,68	45
25°	50°	45	38	45
30°	50°	48,83	39,8	45
35°	50°	53,06	42,08	45
40°	50°	57,85	45	45
45°	50°	63,4	48,75	45
50°	50°	46,6	35,75	30
55°	55°	52,3	42,85	30
60°	60°	46	39,8	23
65°	65°	54,4	49,3	23
70°	70°	39,5	37	13,5
75°	75°	52,16	50,4	13,5



Cam Units CHW



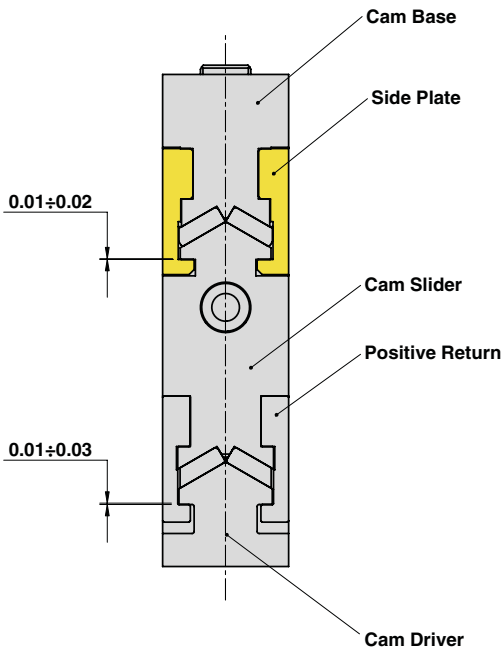
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

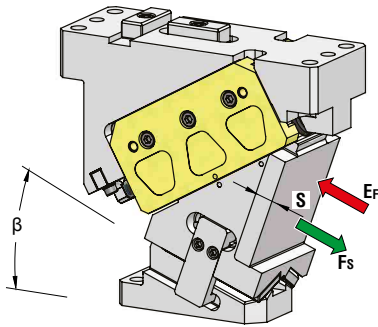


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	1
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	LOCKOUT SYSTEM	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M10 DIN 912	-	3
16	Cam Base Fixing Screws M10 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β			S
				Gas Spring
CHW090.00	0°	28	250	11
CHW090.05	5°	30,8	255	11
CHW090.10	10°	33,84	260	11,5
CHW090.15	15°	36,89	260	11,5
CHW090.20	20°	40	265	11,5
CHW090.25	25°	43,5	270	12
CHW090.30	30°	47,2	275	12
CHW090.35	35°	51,29	280	12,4
CHW090.40	40°	55,92	280	12,4
CHW090.45	45°	61,28	285	12,6
CHW090.50	50°	66,9	290	12,6
CHW090.55	55°	57,53	300	12,8
CHW090.60	60°	66	305	12,8
CHW090.65	65°	78,08	310	13
CHW090.70	70°	67,25	318	13
CHW090.75	75°	61,82	320	13,2



Art.	Work Angle = 5°
CHW090.	05

OMCR CODE	Work Angle	Overall Dimensions (mm)									
	β	A	B	C	D	E	F	G	H	I	J
CHW090.00	0°	196,69	70,15	72	208	230	136	105	75	191	215
CHW090.05	5°	206,69	74,45	70	260	235	135	90	110	201	225
CHW090.10	10°	215,17	79,64	65	205	240	140	95	115	211	235
CHW090.15	15°	216,42	86,42	55	195	240	140	95	115	216	240
CHW090.20	20°	217,31	83,67	50,5	185,5	230	135	90	110	221	245
CHW090.25	25°	220,17	86,39	45	180	230	135	90	110	221	245
CHW090.30	30°	223,69	91,43	30	165	225	135	90	110	226	250
CHW090.35	35°	222,78	94,02	20	155	220	135	90	110	226	250
CHW090.40	40°	217,88	96,41	15	150	220	135	90	110	226	250
CHW090.45	45°	218,48	94,32	5	140	205	135	90	110	226	250
CHW090.50	50°	206,61	106,51	1,5	116,5	205	115	63	50	216	240
CHW090.55	55°	203,78	107,91	0	105	210	105	60	50	216	240
CHW090.60	60°	216,26	112,73	-5	100	210	105	60	50	216	240
CHW090.65	65°	217,57	136,11	-10	95	220	105	50	50	216	240
CHW090.70	70°	207,35	139,74	-20	83	215	102	40	50	216	240
CHW090.75	75°	206,25	154,43	-15	80	210	95	40	50	216	240





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

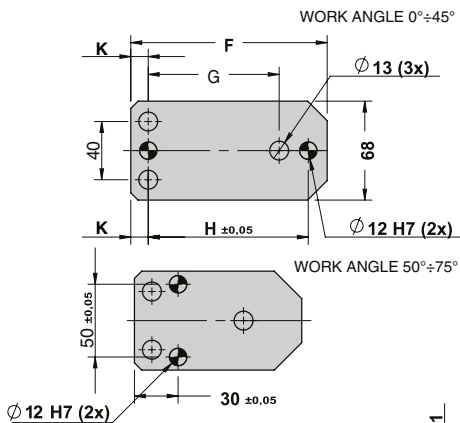
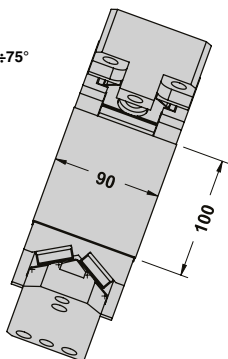
X VIEW

WORK ANGLE 0°

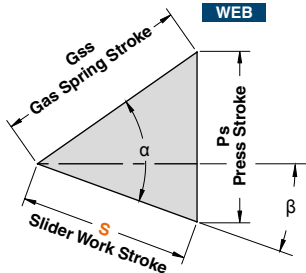
K=15

WORK ANGLE 5°÷75°

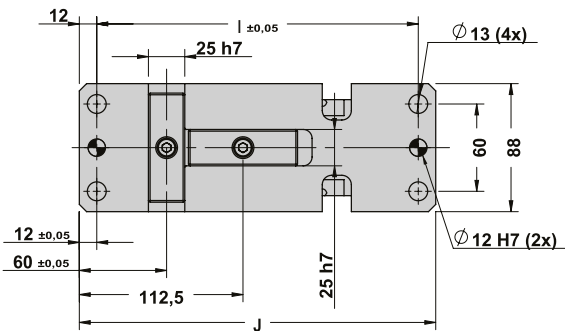
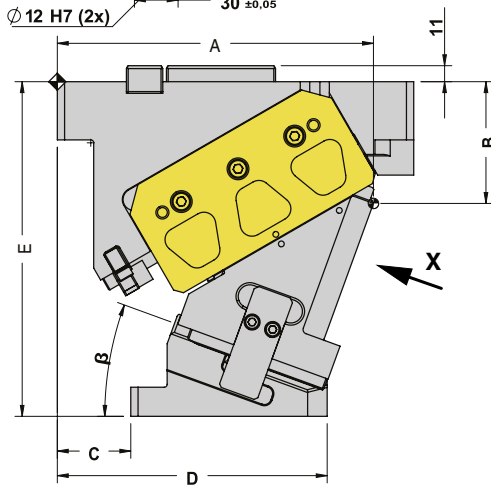
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CAM DIAGRAM



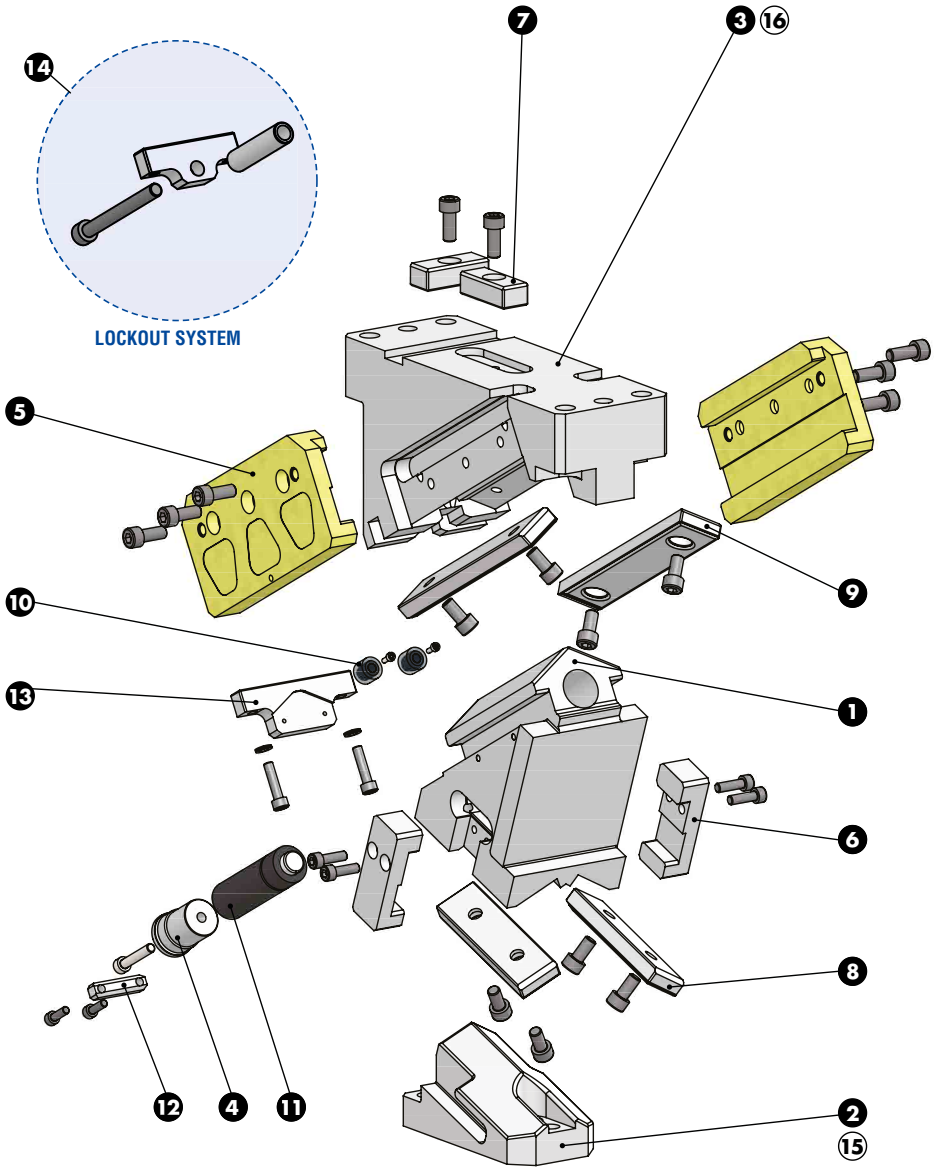
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
β	α	S	Ps	Gss
0°	50°	28	33,33	43,5
5°	50°	30,8	33,45	43,5
10°	50°	33,84	33,84	43,5
15°	50°	36,89	34,5	43,5
20°	50°	40	35,46	43,5
25°	50°	43,5	36,77	43,5
30°	50°	47,2	38,48	43,5
35°	50°	51,29	40,68	43,5
40°	50°	55,92	43,5	43,5
45°	50°	61,28	47,13	43,5
50°	50°	66,9	51,25	43
55°	55°	57,53	47,13	33
60°	60°	66	57,16	33
65°	65°	78,08	70,77	33
70°	70°	67,25	63,19	23
75°	75°	61,82	59,71	16

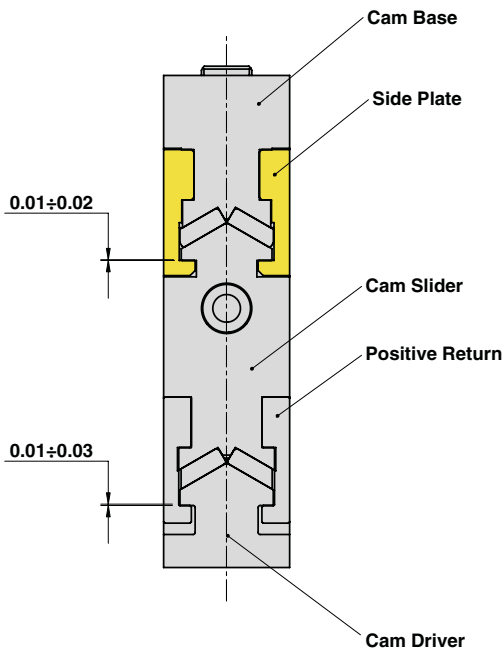


Cam Units CHW



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

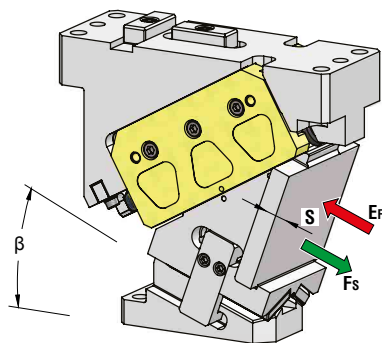



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA
SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	2
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	LOCKOUT SYSTEM	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M12 DIN 912	-	3
16	Cam Base Fixing Screws M12 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β			S
CHW110.00	0°	28	250	11
CHW110.05	5°	30,8	255	11
CHW110.10	10°	33,84	260	11,5
CHW110.15	15°	36,89	260	11,5
CHW110.20	20°	40	265	11,5
CHW110.25	25°	43,5	270	12
CHW110.30	30°	47,2	275	12
CHW110.35	35°	51,29	280	12,4
CHW110.40	40°	55,92	280	12,4
CHW110.45	45°	61,28	285	12,6
CHW110.50	50°	66,9	290	12,6
CHW110.55	55°	57,53	300	12,8
CHW110.60	60°	66	305	12,8
CHW110.65	65°	78,08	310	13
CHW110.70	70°	67,25	318	13
CHW110.75	75°	61,82	320	13,2



Art.	Work Angle = 5°
CHW110.	05

OMCR CODE	Work Angle	Overall Dimensions (mm)									
	β	A	B	C	D	E	F	G	H	I	J
CHW110.00	0°	196,69	70,15	72	208	230	136	105	75	191	215
CHW110.05	5°	206,69	74,45	70	260	235	135	90	110	201	225
CHW110.10	10°	215,17	79,64	65	205	240	140	95	115	211	235
CHW110.15	15°	216,42	86,42	55	195	240	140	95	115	216	240
CHW110.20	20°	217,31	83,67	50,5	185,5	230	135	90	110	221	245
CHW110.25	25°	220,17	86,39	45	180	230	135	90	110	221	245
CHW110.30	30°	223,69	91,43	30	165	225	135	90	110	226	250
CHW110.35	35°	222,78	94,02	20	155	220	135	90	110	226	250
CHW110.40	40°	217,88	96,41	15	150	220	135	90	110	226	250
CHW110.45	45°	218,48	94,32	5	140	205	135	90	110	226	250
CHW110.50	50°	206,61	106,51	1,5	116,5	205	115	63	50	216	240
CHW110.55	55°	203,78	107,91	0	105	210	105	60	50	216	240
CHW110.60	60°	216,26	112,73	-5	100	210	105	60	50	216	240
CHW110.65	65°	217,57	136,11	-10	95	220	105	50	50	216	240
CHW110.70	70°	207,35	139,74	-20	83	215	102	40	50	216	240
CHW110.75	75°	206,25	154,43	-15	80	210	95	40	50	216	240



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

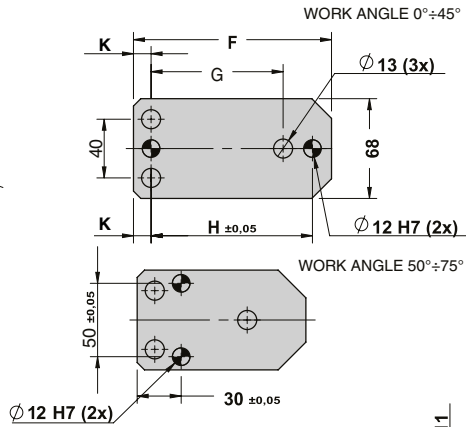
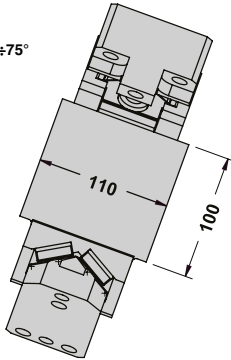
X VIEW

WORK ANGLE 0°

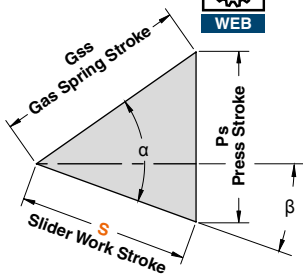
K=15

WORK ANGLE 5°÷75°

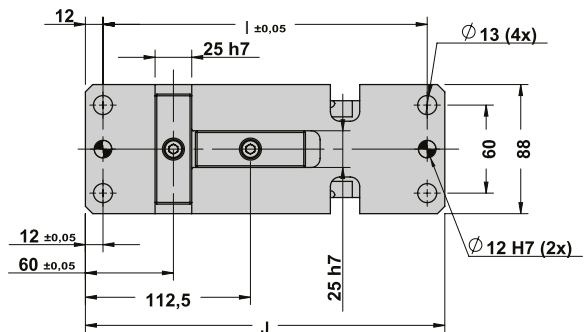
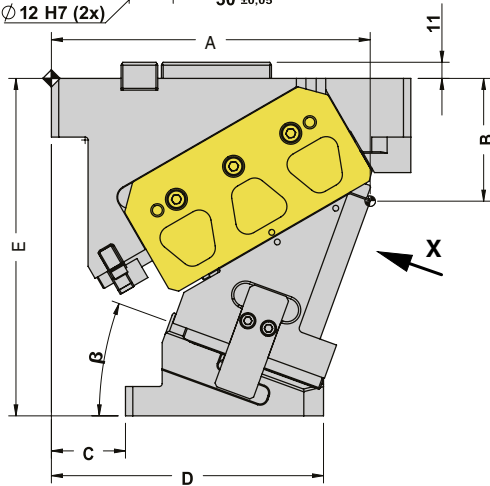
K=12



CAM DIAGRAM

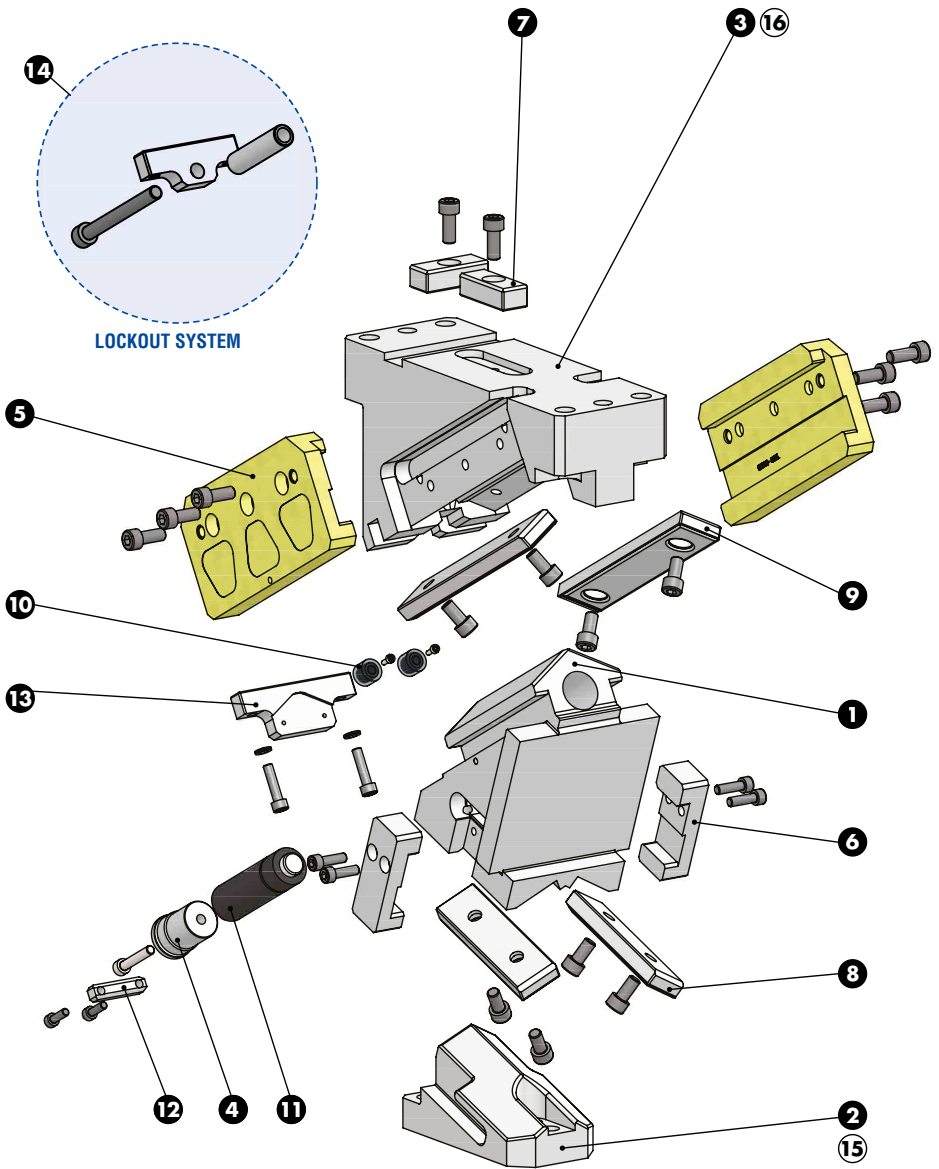


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
β	α	S	Ps	Gss
0°	50°	28	33,33	43,5
5°	50°	30,8	33,45	43,5
10°	50°	33,84	33,84	43,5
15°	50°	36,89	34,5	43,5
20°	50°	40	35,46	43,5
25°	50°	43,5	36,77	43,5
30°	50°	47,2	38,48	43,5
35°	50°	51,29	40,68	43,5
40°	50°	55,92	43,5	43,5
45°	50°	61,28	47,13	43,5
50°	50°	66,9	51,25	43
55°	55°	57,53	47,13	33
60°	60°	66	57,16	33
65°	65°	78,08	70,77	33
70°	70°	67,25	63,19	23
75°	75°	61,82	59,71	16





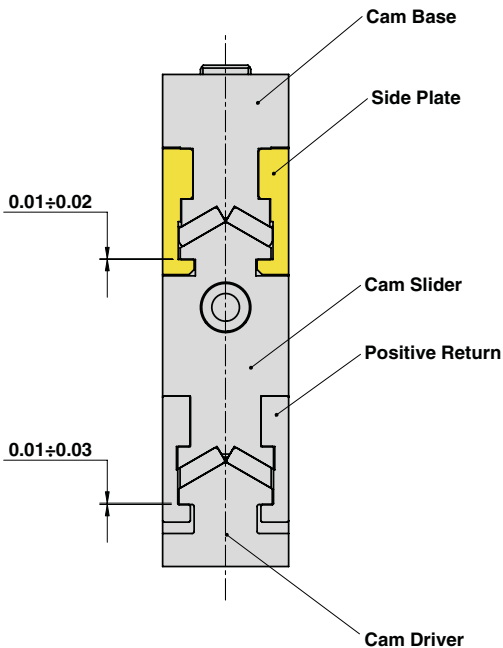
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



Cam Units CHW

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	2
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	LOCKOUT SYSTEM	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M12 DIN 912	-	3
16	Cam Base Fixing Screws M12 DIN 912	-	4