



UCCU-ULTRA COMPACT CAM UNIT

Best in class

voestalpine Camtec GmbH
www.voestalpine.com/camtec

voestalpine

ONE STEP AHEAD.



voestalpine Camtec

Your innovative and reliable partner

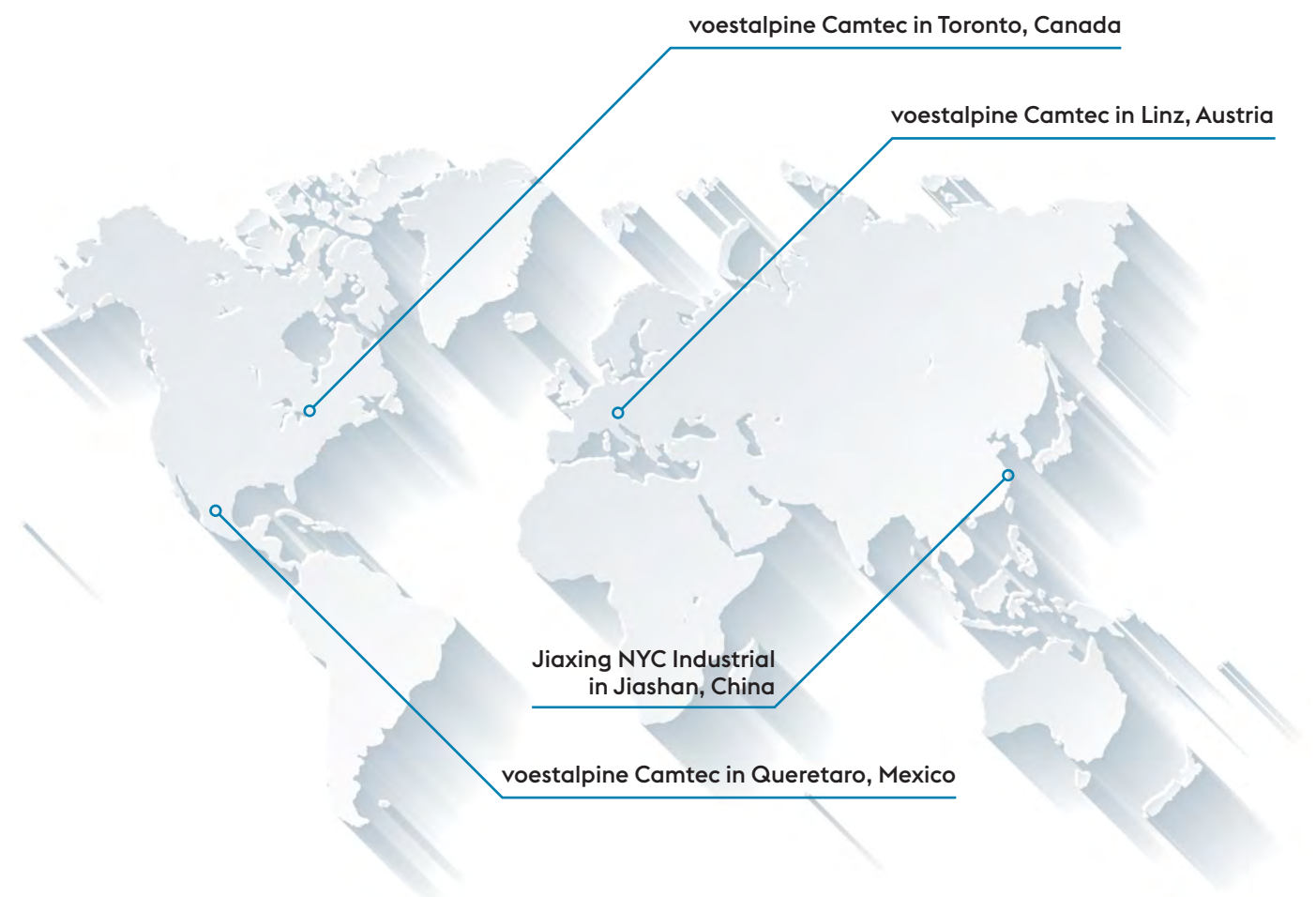
voestalpine Camtec is a world leader with many years of experience in the manufacturing of cam units and maintenance-free sliding elements.

Sector-specific expertise and detailed knowledge of manufacturing processes made voestalpine Camtec the go-to reliable partner of renowned companies in the automotive and mechanical engineering industry. Our customers are provided with innovative products and high-quality service. Our team of highly trained technical specialists is

dedicated to providing excellent, long lasting and effective solutions. They will be happy to support you and answer any questions. voestalpine Camtec's state-of-the-art sliding elements, technologies, spare parts management system, rapid turnaround and our comprehensive service and support put us one step ahead.

WORLDWIDE CUSTOMER SERVICE AND PRODUCT AVAILABILITY

With headquarters in Linz, Austria and locations and subsidiaries around the globe, voestalpine Camtec is able to respond quickly to your needs, providing high quality, local service and support wherever you are. Dedicated inventories in Austria, Canada and China make it possible to react quickly in the event of an emergency breakdown.



Our international team of experts remains at your service:
Find your contact partner online at www.voestalpine.com/camtec or
contact us at sales.camtec@voestalpine.com.

UCCU FOR BEST RESULTS IN NARROW SPACES

Space-saving. Practical. Precise.

UCCU, the ultra-compact cam unit, creates new prospects in the world of modern tool development. Proven quality combined with unique product design to create a variety of new application possibilities. The result is a compact tempered steel cam unit designed to fit where others can't, but maintain high levels of performance and reliability.

COMPACT DESIGN WITH LOW LEVEL OF COMPLEXITY

due to very few individual components and the usage of tempered steel

HIGH RETRACTION FORCE

for the processing of high-strength steels

HIGH QUALITY

surface finish and material grades

PATENTED 1° ANGLE

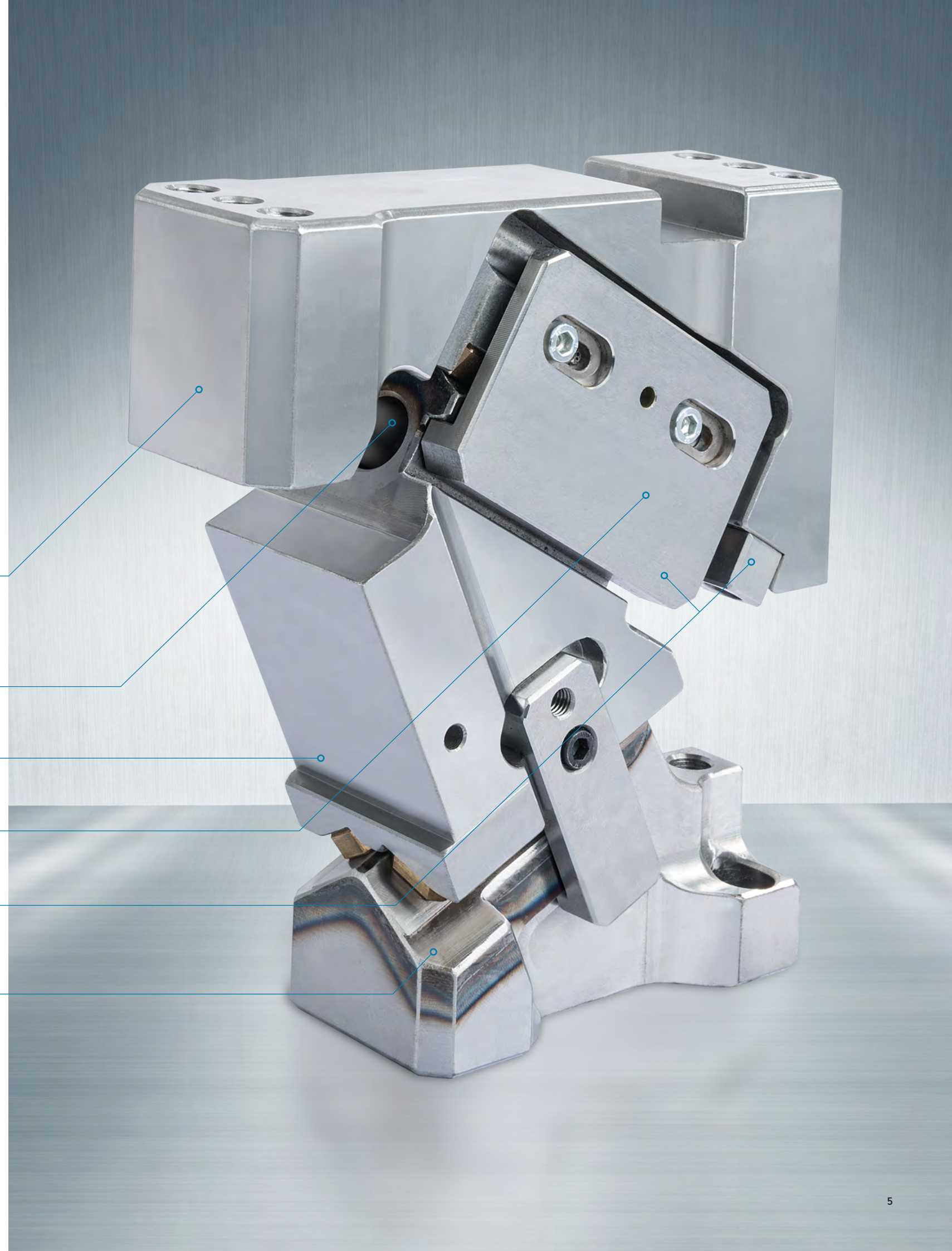
of side plates

FLEXIBLY EXCHANGEABLE

from the rear or side

HARDENED SLIDING SURFACES

for high loads



Please find the most state-of-the-art UCCU cam units in our product finder: www.voestalpine.com/camtec/Product-Finder

HIGHLY COMPACT WITH FOCUS ON THE APPLICATION

Sophisticated component geometries and application-specific optimization are impressive features of the highly compact UCCU design.

- Ⓐ Retaining screw
- Ⓑ Lock screw
- Ⓒ Gas spring
- Ⓓ Driver
- Ⓔ Wear plates
- Ⓕ Lock-out screw
- Ⓖ Lock-out tube
- Ⓗ Lock-out block
- Ⓘ Positive return
- ⓵ Cam slider
- Ⓚ Stop block
- Ⓛ Tubus damper
- Ⓜ Wear plates
- Ⓝ Side plate (right)
- Ⓞ Side plate (left)
- Ⓟ Cam base
- Ⓠ Fitting key



FIND YOUR SOLUTION QUICKLY,
EASILY AND SYSTEMATICALLY.



When it comes to design, ordering and spare parts management, you will be able to quickly and easily find product details and information using our download center.



TECHNICAL DETAILS UCCU

Important information at a glance

The following information contains pertinent technical data for the Ultra Compact Cam Unit – UCCU. Should you require further information or have any question, an experienced team of specialists will be happy to assist you any time. Please contact us at sales.camtec@voestalpine.com

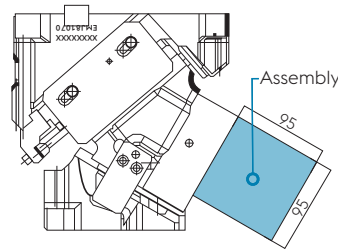
	UCCU
Average service life (depending on loads)	2,000,000 strokes
Guaranteed Service Life (Warranty)	1,000,000 strokes
Precision adjustments made during assembly	Yes
Sliding surfaces	At least Rz 6.3, hardened
Field of application	Punching operations, beveling, cutting and forming
Angle range	0° – 75°
Material of driver, slider and cam base	tempered steel, 42CrMo4
Tensile strength of driver, slider and cam base materials	min. 900 MPa
Available widths	60 mm
Lock-out system	Yes
Side plates	42CrMo4 / Sinter
Positive return	Both sides
Tooling Points	Yes
Gas spring	Yes
Special cam unit options	Yes
Compliant with BAK/VDI	Yes
NAAMs insert point	Yes

FORCE DISTRIBUTION AND PERMISSIBLE CAM FORCES

UCCU 60 mm cam unit specifications

Identification number	Name	Angle	Weight [kg]	Stroke [mm]
27080	UCCU 60-0°	0°	11,3	21.86
27081	UCCU 60-5°	5°	11,2	21.94
27082	UCCU 60-10°	10°	10,8	26.45
27083	UCCU 60-15°	15°	10,8	26.96
27084	UCCU 60-20°	20°	10,6	25.81
27085	UCCU 60-25°	25°	10,6	26.76
27086	UCCU 60-30°	30°	11,0	21.23
27087	UCCU 60-35°	35°	11,2	22.44
27088	UCCU 60-40°	40°	11,3	23.74
27089	UCCU 60-45°	45°	11,6	25.72
27090	UCCU 60-50°	50°	11,6	28.29
27091	UCCU 60-55°	55°	11,6	31.71
27092	UCCU 60-60°	60°	10,6	35.45
27093	UCCU 60-65°	65°	10,7	41.95
27094	UCCU 60-70°	70°	10,6	51.83
27095	UCCU 60-75°	75°	10,7	68.49

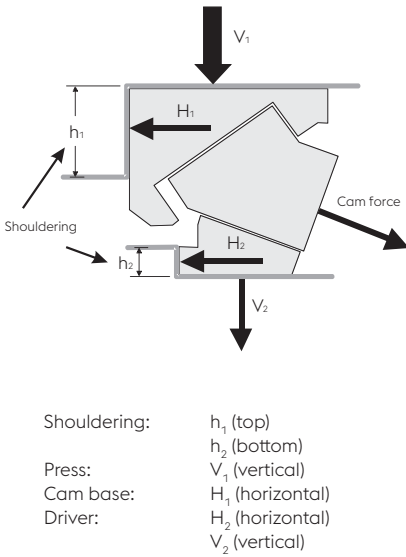
As a guideline, the length of the assembly may not exceed the height of the working surface. The assembly should generally be as compact as possible. For longer assemblies additional support should be provided by sliding plates. If you have any questions, please contact engineering.camtec@voestalpine.com



UCCU 60 mm cam unit force distribution

Cam angle	Maximum cam force [kN]	Force distribution at maximum cam force [kN]				Shouldering [mm]		Retraction force [kN]
		V1	H1	V2	H2	h1	h2	
0°	124	104	124	104	0	145	26	3,7
5°	131	103	123	91	8	145	26	4,1
10°	119	119	100	98	17	120	26	3,7
15°	126	118	99	85	23	120	26	4,1
20°	118	133	77	93	34	106	48	3,4
25°	126	133	77	80	37	106	48	3,8
30°	152	124	104	48	28	120	48	6,1
35°	157	125	104	34	24	120	48	8,1
40°	153	141	81	43	36	106	48	6,1
45°	157	141	81	30	30	106	48	8,1
50°	160	141	81	18	22	106	48	12,0
55°	162	141	81	8	12	106	48	18,0
60°	154	161	28	28	49	50	90	5,8
65°	162	165	29	18	39	50	90	7,6
70°	161	161	28	10	27	50	90	11,4
75°	162	160	28	4	14	50	90	18,0

The cam unit force is distributed as shown in the sketch:



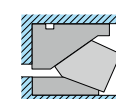


Find just the right UCCU model, quickly and simply.
Use our product finder:
www.voestalpine.com/camtec/Product-Finder

UCCU FORCE DISTRIBUTION

Angle dimension 0° – 15°

Permissible cam forces



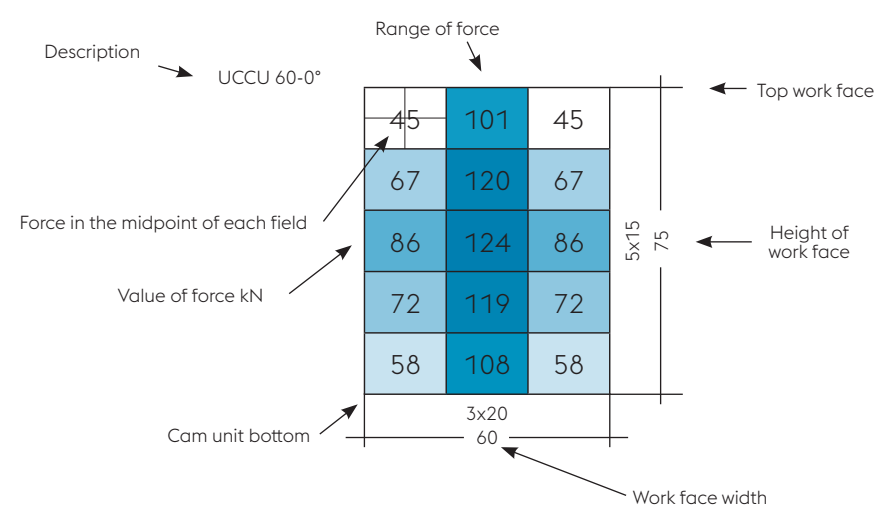
Shouldering

Shouldering support at top and bottom

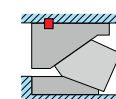
UCCU 60-0°			UCCU 60-5°			UCCU 60-10°			UCCU 60-15°		
45	101	45	47	113	47	41	98	41	42	109	42
67	120	67	73	130	73	61	117	61	67	126	67
86	124	86	83	131	83	87	119	87	85	126	85
72	119	72	66	128	66	77	118	77	68	126	68
58	108	58	49	114	49	60	118	60	53	120	53
60			60			60			60		

PERMISSIBLE CAM FORCES

The following overview shows the permissible cam force in the center of each field in the direction of cam travel (rounded values). In the event of several different forces, the common center of force must be determined and compared with the values indicated in the table. All introduced forces must always be lower than those indicated in the table.



The coloring in the force diagrams reflects tendencies in the range of values from the smallest force to the maximum cam force for each method of support.



Fitting key

Fitting key support at top, shouldering support at bottom

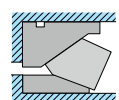
UCCU 60-0°			UCCU 60-5°			UCCU 60-10°			UCCU 60-15°		
37	37	37	39	41	39	40	46	40	41	48	41
38	38	38	41	41	41	46	46	46	49	49	49
38	38	38	41	41	41	45	45	45	49	50	49
38	38	38	41	42	41	46	47	46	50	50	50
38	38	38	41	41	41	46	46	46	48	50	48
60			60			60			60		

Rounded values

UCCU FORCE DISTRIBUTION

Angle dimension 20° – 35°

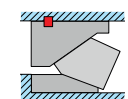
Permissible cam forces



Shouldering

Shouldering support at top and bottom

UCCU 60-20°			UCCU 60-25°			UCCU 60-30°			UCCU 60-35°		
43	102	43	42	113	42	18	89	18	11	67	11
63	119	63	69	126	69	35	143	35	24	129	24
85	118	85	86	126	86	65	152	65	45	157	45
75	118	75	69	126	69	70	143	70	72	149	72
59	115	59	54	116	54	57	119	57	61	113	61
60			60			60			60		



Fitting key

Fitting key support at top, shouldering support at bottom

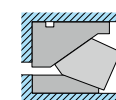
UCCU 60-20°			UCCU 60-25°			UCCU 60-30°			UCCU 60-35°		
43	59	43	43	64	43	19	56	19	12	50	12
57	60	57	60	64	60	34	56	34	24	59	24
59	59	59	64	64	64	57	57	57	46	59	46
60	61	60	64	65	64	58	58	58	59	60	59
57	60	57	54	65	54	55	58	55	58	59	58
60			60			60			60		

Rounded values

UCCU FORCE DISTRIBUTION

Angle dimension 40° – 55°

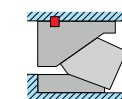
Permissible cam forces



Shouldering

Shouldering support at top and bottom

UCCU 60-40°			UCCU 60-45°			UCCU 60-50°			UCCU 60-55°		
16	83	16	8	57	8	7	69	7	5	50	5
32	142	32	18	124	18	15	147	15	6	127	6
61	153	61	41	157	41	43	160	43	19	162	19
73	139	73	71	147	71	62	129	62	55	130	55
58	131	58	62	113	62	47	112	47	50	115	50
60			60			60			60		



Fitting key

Fitting key support at top, shouldering support at bottom

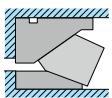
UCCU 60-40°			UCCU 60-45°			UCCU 60-50°			UCCU 60-55°		
16	65	16	6	53	6	4	52	4	4	47	4
32	73	32	13	75	13	8	77	8	5	76	5
61	73	61	42	75	42	43	78	43	9	78	9
72	74	72	72	76	72	64	79	64	56	79	56
59	74	59	64	78	64	48	81	48	53	82	53
60			60			60			60		

Rounded values

UCCU FORCE DISTRIBUTION

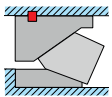
Angle dimension 60° – 75°

Permissible cam forces



Shouldering
Shouldering support at top and bottom

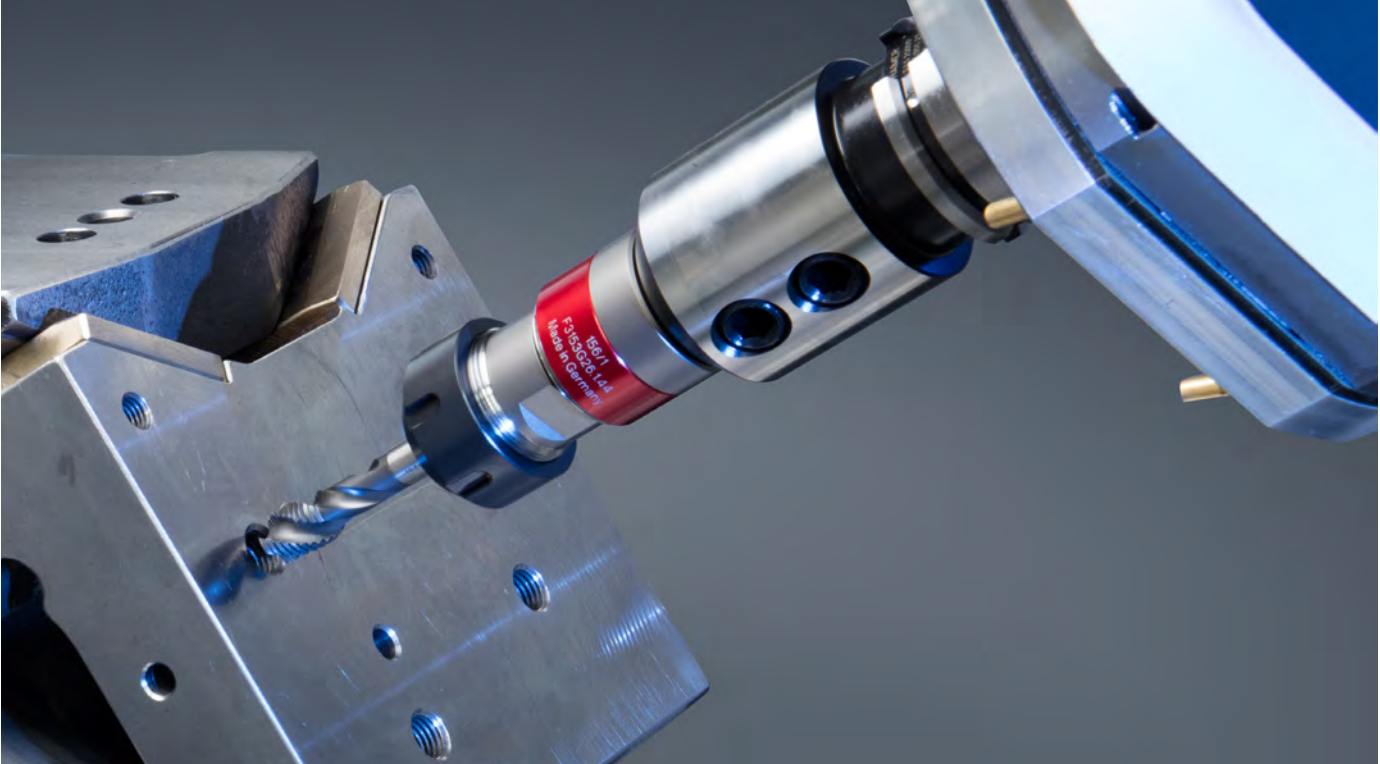
UCCU 60-60°			UCCU 60-65°			UCCU 60-70°			UCCU 60-75°		
17	85	17	12	74	12	11	82	11	15	55	15
32	143	32	25	142	25	24	148	24	14	131	14
61	154	61	47	161	47	47	161	47	32	161	32
89	153	89	79	162	79	71	158	71	61	162	61
63	142	63	67	151	67	53	126	53	54	126	54
60			60			60			60		



Fitting key
Fitting key support at top, shouldering support at bottom

UCCU 60-60°			UCCU 60-65°			UCCU 60-70°			UCCU 60-75°		
13	61	13	10	53	10	8	58	8	6	40	6
23	101	23	18	100	18	18	105	18	11	93	11
45	109	45	35	115	35	35	114	35	24	115	24
64	109	64	58	114	58	52	112	52	45	117	45
47	102	47	49	107	49	39	91	39	41	93	41
60			60			60			60		

Rounded values



PRE-MACHINING SERVICES

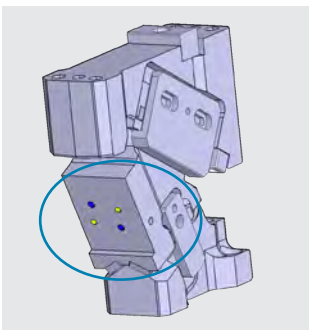
Flexible, precise and economical

voestalpine Camtec provides comprehensive preparation of your cam unit. We would be happy to use your CAD data to prepare threads, pre-drill bore holes, carry out customized milling or mount elements on your cam unit. This saves our customers from having to perform additional

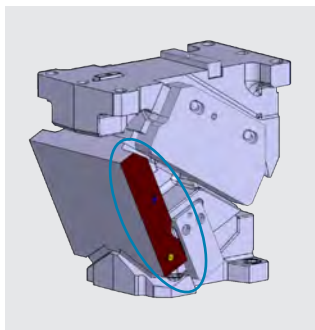
work steps. Please send us any inquiries pertaining to standard preprocessing of the work face or other customized preprocessing to: anarbeitung.camtec@voestalpine.com

Example of UCCU pre-machining

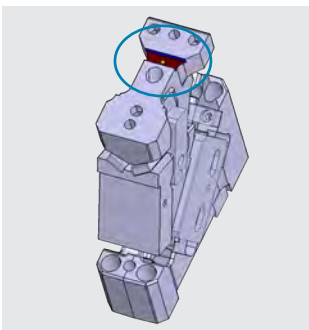
Processing on working face
Standard preprocessing



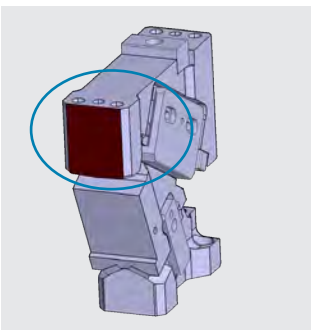
Processing on working face width
Extended preprocessing



Processing on driver (groove)
Extended preprocessing



Processing on cam base
Extended preprocessing



International offices

02/2020

GERMANY

voestalpine Deutschland GmbH

Wilhelm-Wagenfeld-Straße 26
80807 München, Germany
T. +49/172/926 9141
thomas.milke@voestalpine.com
M. +43/664/883 236 24
andy.kromoczinsky@voestalpine.com

NETHERLANDS, BELGIUM

Technisches Büro Bäcker B.V.

Pieter Liefstinckweg 20
1505 HX Zaandam, Netherlands
T. +31/75/681 80 00
F. +31/75/681 80 01
info@tbbacker.nl

NORTH AMERICA

voestalpine Camtec Corp.

1907 Albion Road
Toronto ON M9W 5S8, Canada
jeffrey.devries@voestalpine.com
T. +1/4166176760
marlene.sturm@voestalpine.com
T. +1/6477454592
charles.ciaravino@voestalpine.com
T. +1/4166755150

SOUTH AFRICA

voestalpine Eurostahl GmbH

23 Anvil Road, Isando 1600,
South Africa
T. +27/11/928-3715
M. +27/82/085 67 04
M. +43/664/8832 48 46
bettina.poell@voestalpine.com

SLOVAKIA

E - Normalie servis s.r.o.

Rybná 716/24,
110 00 Staré Město, Praha
Czech Republic
T. +420/566/521 436
info@e-normalie.cz

SPAIN

Auxtrol Auxiliar de Troquelaria S.A.

Pol, Ind. El Campillo, Pab. A-9
48509 Abanto - Zierbena, Spain
T. +34/94/6363-612
F. +34/94/6363-658
comercial@auxtrol.com

MEXICO

voestalpine Camtec Corp.

Cerrada la Noria No. 200 Int. A-14
Parque Industrial Queretaro
C.P. 76220, Queretaro, Mexico
T. +52/442/402 19 08
rodrigo.fonseca@voestalpine.com

CHINA

voestalpine Steel Trading Co., Ltd.

Shanghai Branch

Representative Office
Room 1313, No. 383 Li Zhou Building,
Nan Qiao Huan Cheng Dong Lu,
Feng Xian, Shanghai, P. R. China
T. +86/21 6089 0708
M. +86/133 11612667
zhenhua.xue@voestalpine.com

TURKEY

voestalpine Eurostahl GmbH Istanbul

Liaison Office

Fatih Sultan Mehmet Mahallesi Poligon
Cad., Buyaka 2 Sitesi No:8C
Kule 3, Kat 11, Daire:67
34771 Ümraniye-Istanbul, Turkey
T. +90/216/290 75 20
M. +90/554/181 58 61
alihan.aydin@voestalpine.com

SWEDEN, NORWAY

FINLAND, DENMARK

Lagermetall AB

Boskärsgatan 23
702 25 Örebro, Sweden
T. +46/19/1045-25
F. +46/19/1238-55
brons@lagermetall.se

CZECHIA

voestalpine ČR s.r.o.

Karlovo náměstí 31
120 00 Praha 2, Czech Republic
T. +420/224/9081-00
F. +420/224/9081-04
michal.koutnak@voestalpine.com

E - Normalie servis s.r.o.

Rybná 716/24,
110 00 Staré Město, Praha
Czech Republic
T. +420/566/521 436
info@e-normalie.cz

ITALY

Maric S.A.S. di Rossato & C.

Via Milano 7
23878 Verderio Superiore-LC, Italy
T. +39/039/928 12-62
F. +39/039/951 71-75
maricas@maricas.com

voestalpine Italia S.r.l.

Via F. Turati, 29
20121 Milano, Italy
T. +39/02/290 81-232
F. +39/02/290 81-219
sabine.koellerer@voestalpine.com

South Korea

WonNetworks

GWANG JU Design Center
[61012] 616Ho, 27, Cheomdangwagi-ro
176beon-gil, Buk-gu, Gwangju City,
Republic of Korea
M. +82/10/4899-8681
kwangwon.kim@voestalpine.com

voestalpine Camtec GmbH

voestalpine-Straße 3
4020 Linz, Austria
T. +43/50304/15-0
F. +43/50304/55-8069
sales.camtec@voestalpine.com
www.voestalpine.com/camtec

voestalpine

ONE STEP AHEAD.