

Forge

Forge is the plant with longest traditon of 105+ years in KOVOLIT, a.s.

Hot die forging

Hot die forging is an important technology for all industry branches manufacturing semi-products that require high strength and homogeneity of material.



Cold extrusion of Al alloys

Forge I

- forgings made from non-ferrous alloys weigh from 5 g to 38 kg
- presses with a forming force ranging from 1.25 MN to 16 MN.





Forge II

- forgings and extrusions of Al alloys from 20g up to 500g
- Automatic forging lines





Machine equipment





- 12 crank and screw presses Šmeral, Žďas, Müller Weingartner, trimmed on eccentric and carousel presses









Forging force 125 – 1,600 t

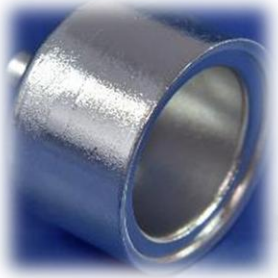
- NEW Šmeral Press Machine with Forging Force 2,500 t



- Automatic forging lines Hydromec, Šmeral (for high serial production)

with material feed, go-through oven and trimming press

Machine equipment



- Cold extrusion presses 400 – 630 t
- Automatic, semi-automatic saws for cutting semi products (bars)
- Tumbling machines, blast barrel, shot-blasting machines Hunziker, Rösler
- Heat-treatment line CAE
- Smeltery CAE Realistic, CTA Maestri

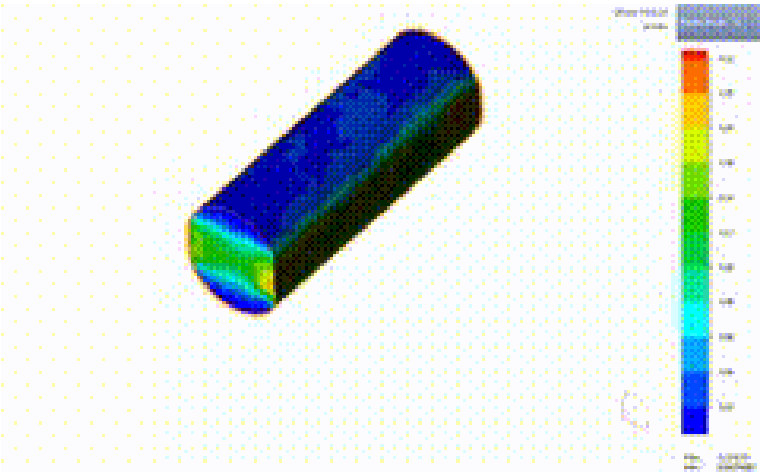


Providing cooperation in surface treatment (e.g. coating), machining.

In house manufacturing of forging dies
and various jigs

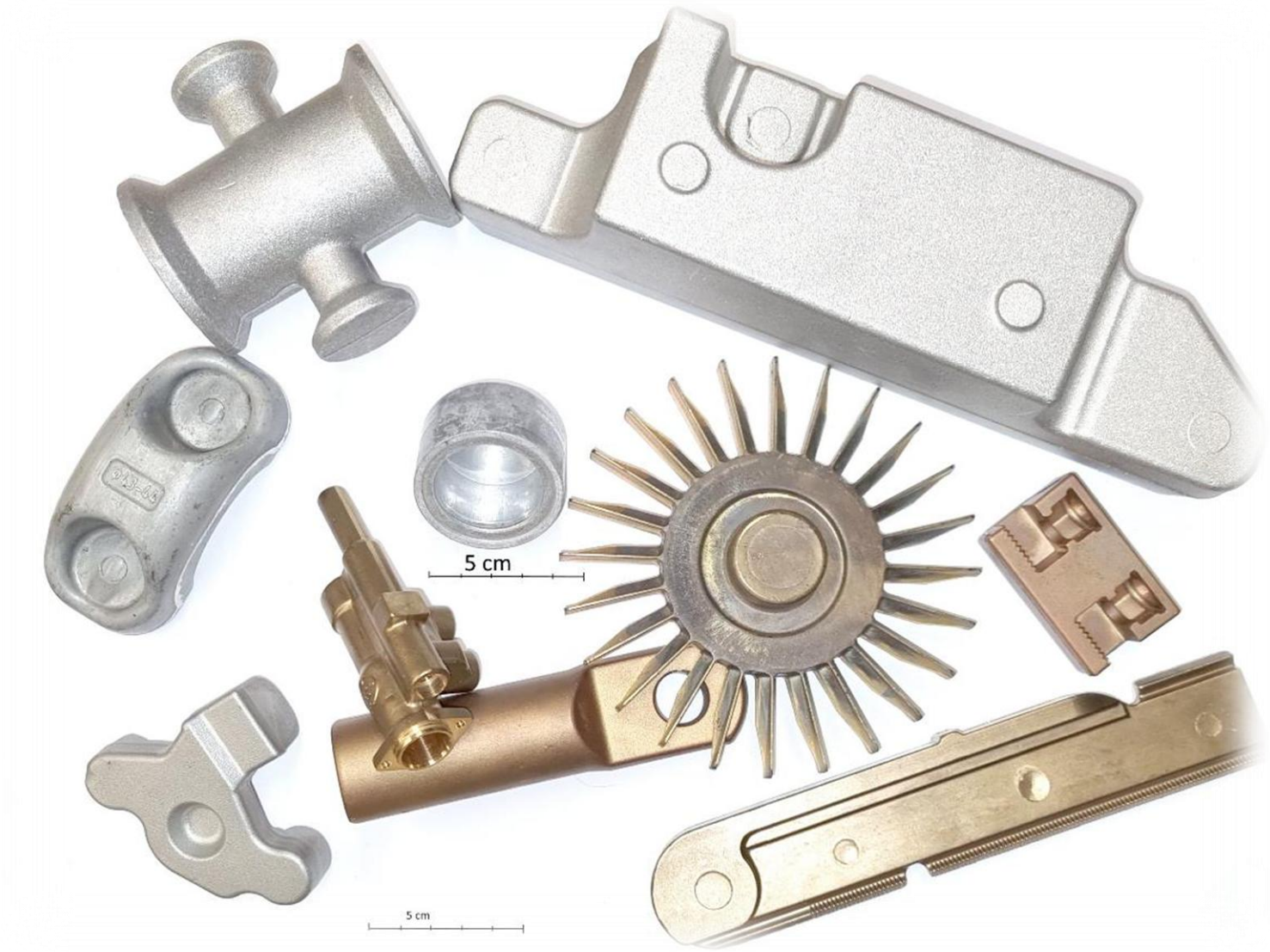


Development of the material forming process
using CAD and Qform VX simulation program



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High variability of production



Overview of productive machine equipment

Equipment	Manufacturer	Machine type	Forging force	Available capacity (*)
Automatic forging line	Hydromec	HF 4000 DV	400 t	On Hold
Automatic forging line	Müller Weingartner	PA 160	250 t	30%
Screw press	Müller Weingartner	PA 180	180 t	20%
Screw press	Müller Weingartner	PA 200	200 t	20%
Screw press	Müller Weingartner	PS 160	160 t	15%
Screw press	Müller Weingartner	PSS 300	300 t	30%
Toggle – lever press	Šmeral	LRR 400 S	400 t	60%
Toggle – lever press	Šmeral	LRR 400 S	400 t	80%
Crank press	Šmeral	LZK 1600 P	1600 t	50%
Crank press	Šmeral	LZK 2500	2500 t	Installation In Progress
Crank press	ZDAS	LU 630/1000 A	630 t	50%
Friction forging press	ZDAS	LF 350/800	350 t	30%
Friction forging press	ZDAS	LF 450/850	450 t	50%
Friction forging press	ZDAS	LF 710/950	710 t	50%
Friction forging press	ZDAS	LU 400/1000	400 t	On Hold

(*) – available capacity = capacity of machines

Overview of productive machine equipment

Equipment	Manufacturer	Machine type	Nominal closing force
Eccentric trimming press	TOMA Trnava	LEN 40 C	40 t
Eccentric trimming press	TOMA Trnava	LEN 63 C	63 t
Eccentric trimming press	TOMA Trnava	LEU 100 A	100 t
Eccentric trimming press	TOMA Trnava	LEXN 100P	100 t
Eccentric trimming press	VSS Košice	LE 160 F	160 t
Eccentric trimming press	VSS Košice	LE 400 F	400 t
Eccentric trimming press	VSS Košice	LEK 250	250 t
Heat-treatment furnace line CAE	CAE	CAE 12.16.11/6	
Heating furnace - heat treatment	CAE	CAE 12.16..11/5,5 REALISTIC	
Heating furnace - heat treatment	CAE	CAE 12.16.11/2 REALISTIC	
Heating furnace - heat treatment	CAE	CAE 12.16.16./5,5 REALISTIC	
Heating furnace	BSN	BSN 1434	
Heating furnace	Schwarz	GA 1498	
Heating furnace	Schwarz	T.A.D. OA 07025	
Induction melting furnace 2x	Realistic	ACA 1000 MS	
Through heating furnace	Maestri	TURBO-GAS CTA 4000x600 Maestri	

Overview of productive machine equipment

Equipment	Manufacturer	Machine type
Automatic sawmill with magazine	Exactcut	MAM 75 TWIN
Sawmill semiautomatic	Adige	ADIGE CM 500A1
Sawmill semiautomatic	Adige	ADIGE CM 501
Sawmill semiautomatic	Adige	ADIGE CM 601
Sawmill semiautomatic	Wagner	WAGNER WAM70
Shotblasting machine go through	Hunziker	HUNZIKER SBM
Shotblasting machine hanging	Rösler	RMBC 2.1 L
Drum tumbling machine	Rösler	R 620 Euro Rösler
Washing machine semi-products	Rösler	Z 800HA-Turbo Rösler
Washing machine semi-products	Taus	TAUS R35/15
Spectrometer	Spectrosort	Spektrosort SPARK

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Al Alloys

AlSi1MgMn	AW 6082
Al99,5	AW 1050A
AlCu4SiMg	AW 2014
AlCu4MgSi(A)	AW 2017A
AlCu4Mg1	AW 2024
AlCu2Mg1,5Ni	AW 2618A
AlSi12,5MgCuNi	AW 4032
AlMgSi	AW 6060
AlMg1SiCu	AW 6061
AlZn5,5MgCu	AW 7075
AlSi10Cu3	

Cu Alloys

Cu-ETP	CW 004A
CuZn40Pb2	CW 617N
CuCr1Zr	CW 106C
CuAl8Fe3	CW 303G
CuNi2Si	CW 111C
CuAl10Fe3Mn2	CW 306G
CuAl11Fe6Ni6	CW 308G
CuZn39Pb3	CW 614N
CuZn40Pb1Al	CW 616N
CuZn37Mn3Al2PbSi	CW 713R
CuZn35Mn3Al12Si	

Customer Reference List

Elektroline

SLOVARM
Člen skupiny Energy Group EG

ABB

JEAN MÜLLER
THE NAME FOR SAFETY

SCANIA

TE connectivity

Valeo

truma

DAKO-CZ
BRZDOVÉ SYSTÉMY

THANK YOU FOR YOUR ATTENTION