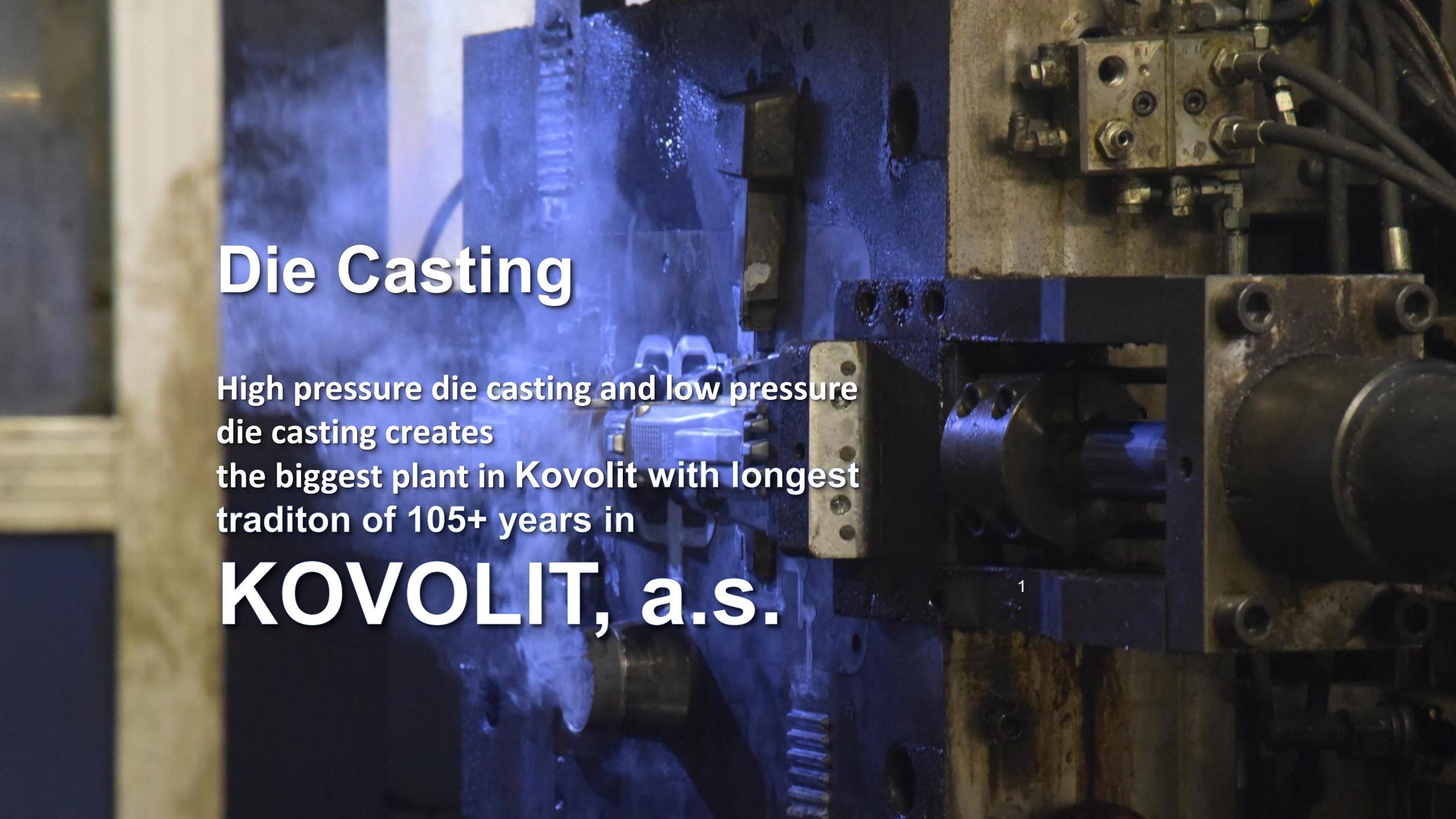


Die Casting

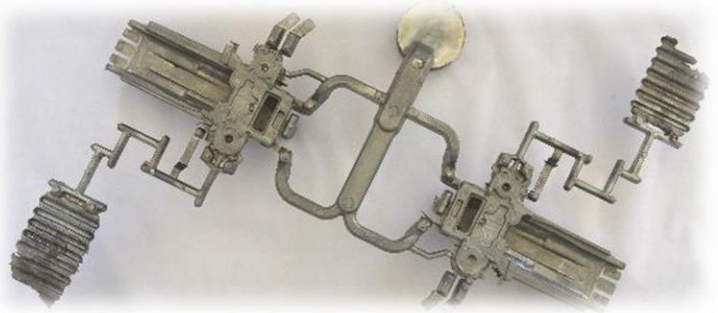
High pressure die casting and low pressure die casting creates the biggest plant in Kovolit with longest traditon of 105+ years in

KOVOLIT, a.s.

KOVOLIT

Aluminium Alloy Foundry

A core technology in the industry for many industrial products with requirements for low weight and higher strength.



Die casting HPDC (High Pressure Die Casting)

fast, high-volume casting into steel moulds at temperatures of 650°-700°C, with closing force of 400-1200 t and part weights 20 g to 25 kg



Mould casting LPDC (Low Pressure Die Casting)

slower, small batch casting thick-walled parts into steel moulds
at temperatures of 700°-750°C, part weights 200g to 30 kg



Gravity (low-pressure casting)

slower, single job casting thick-walled parts into steel moulds or sand moulds
at temperatures of 700°-750°C, part weights 200g to 30 kg

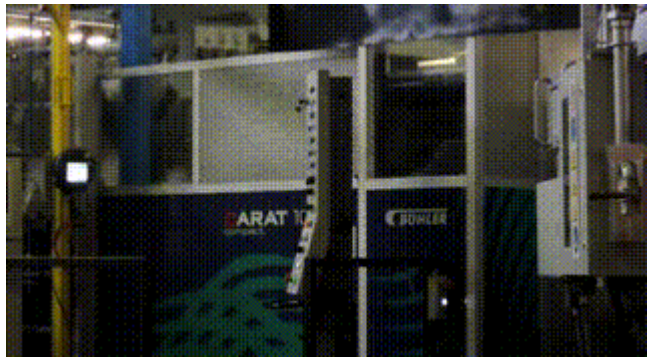
Production Machinery Park



- 14 Die-casting machines Bühler a Müller Weingartner
  Automatic treatment of mould by lubricating device Wolin and automatic manipulation with castings by industry robots Kawasaki or ABB

  Closing force 400 t – 1 200 t

- Automated or manual driven trimming presses directly by machines





Production Machinery Park

- Tilting furnaces StrikoWestofen, crucible furnace UVP for melting of block raw material,



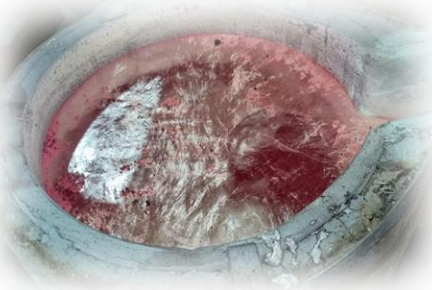






- Equipment for degassing of melt





Production Machinery Park

- Equipment for surface treatment
  – shot blasting, tumbling







- Furnace line CAE for heat treatment of parts

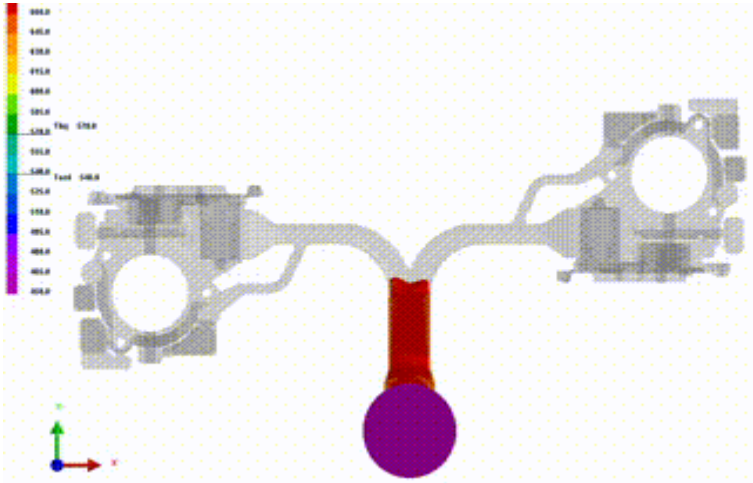
Providing cooperation in surface coating (coating, phosphate coating, machining)

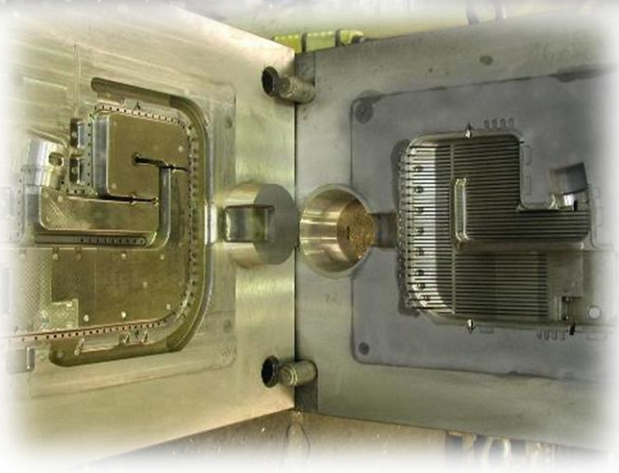
KOVOLIT

In house construction and manufacturing of dies, trimming tool or gauges



Casting process development using simulation SW ProCAST





Die Casting Machines List

Equipment	Manufacturer	Machine type	Closing force	Specification
Die casting machine 2x	**Bühler**	**H 400 B**	**400t**	Robotic manipulator, manual driven trimming, automatic spraying, automatic dosing furnace Striko Westofen
Die casting machine 3x	**Bühler**	**B 53 SC**	**530t**	Fully automatic workplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatic dosing furnace Striko Westofen, conveyor
Die casting machine	**Bühler**	**B 66 D**	**660t**	Fully automatic workplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatic dosing furnace Striko Westofen, conveyor
Die casting machine	**Bühler**	**B 84 D**	**840t**	Fully automatic workplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatic dosing furnace Striko Westofen, conveyor
Die casting machine 2x	**Bühler**	**B 105 Carat**	**1050t**	Fully automatic workplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatic dosing furnace Striko Westofen, conveyor
Die casting machine	**Bühler**	**B 105 D**	**1050t**	Fully automatic workplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatic dosing furnace Striko Westofen, conveyor

(*) available capacity = machine capacity

Die Casting Machines List

Equipment	Manufacturer	Machine type	Closing force	Specification
Die casting machine	**Bühler**	**H 1100 B**	**1200t**	Fully automatic wokplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatical dosing furnace Striko Westofen, conveyor
Die casting machine	**Müller Weingarten**	**MW 550**	**550t**	Fully automatic wokplace equipped with manipulating and trimming robot, automatic spraying head Wolin and automatical dosing furnace Striko Westofen, conveyor
Die casting machine	**Müller Weingarten**	**GDK 750**	**750t**	Manual operated machine, trimming tool, automatical dosing furnace Krown
Die casting machine	**TOS Rakovník**	**TL6-500**	**500 t**	Robotic manipulator, manual trimming, automatical spray and crucible furnace with automatic dosing
LPDC machine 2x	**Kovolit**	**NLSK**	**Part size 30x30cm**	
LPDC machine 2x	**Vihorlat / Elsklo**	**CNS**	**Part size 80x80cm**	
Gravity casting m.	**Vihorlat / Realistic**	**CGU**		

Machinery Park List

Equipment	Manufacturer	Machine type	Working place
trimming press by machine 2x	Vihorlat	LHS15	H 400 B
trimming press manual operation	Vihorlat	LHS25	Surface treatment operations
trimming press by machine	Diesse Presse	T30	H 400 B
trimming press by machine 4x	Diesse Presse	T35	2x B 53 SC, H 1100 B, MW 550
trimming press by machine 2x	Diesse Presse	T45	B 84 D, B 66 D
trimming press by machine 2x	Diesse Presse	T55	B 105 C
trimming press by machine	Robopress	T40	B 105 D
trimming press by machine	Tecnopress	KZP30	B 53 SC
trimming press manual operation	Reis	REIS	Surface treatment operations
trimming press manual operation 2x	TOS Rakovník	OL-28	Surface treatment operations
SPEKTROMETR	Spektro CS	Spektromaxx	QS
X-Ray	YXLON	Y.MU2000-D	QS
3D CMM	Zeiss	Zeiss UMC	QS

Machinery Park List

Equipment	Manufacturer	Machine type
Sand blasting machine hanging 2x	Rösler	
Sand blasting machine hanging 2x	OMSG	
Sand blasting machine drumm	OMSG	
Sand blasting machine drumm	Rösler	
Tumbling line	Rösler	Rösler
Tumbling drumm	Rösler	Spiratron
Melting furnace LPDC 2x	UVP	KP600
Tilting melting furnaces Striko 2x	StrikoWestofen	T3000/1500
Crucible melting furnace 3x	UVP	KP1000
Annealing furnace and furnace for heat treatment (LPDC)		
Annealing furnace (HPDC)	CAE	Realistic

Mainly used Al alloys

Germany	Europe		USA	Japan	China
226 D	EN AC-46000	AlSi9Cu3(Fe)	383.0	ADC10	-
230 D	EN AC-44300	AlSi12(Fe)	A413.0	ADC1	YL102
231D	EN AC-47100	AlSi12Cu1(Fe)	AA384	-	-
239D	EN AC-43400	AlSi10Mg(Fe)	A360	ADC3	YL104

Silafont 36 and others…

General Customers list























THANK YOU FOR YOUR ATTENTION