



VACUUM DIE CASTING



FROM YOUR IDEA TO THE FINAL PART

Over 5'000 achieved projects.

Worldwide technical support.

70 years dedicated to vacuum assisted casting.

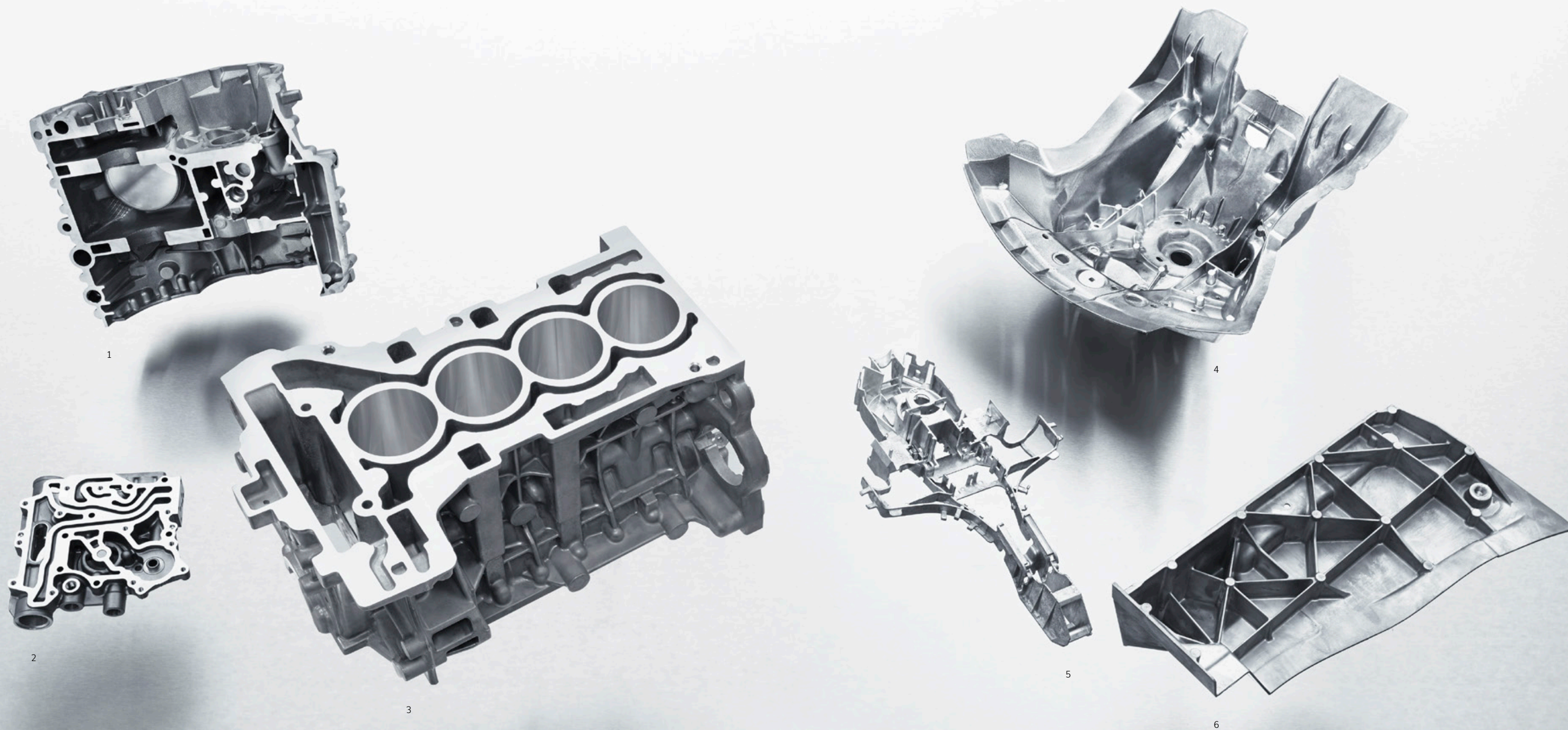
ADDED VALUE

- Increased productivity
- Reduced reject rates
- Proven quality and reliability
- Easy integration and operation

YOUR PARTS IMPROVED

Significantly less porosity
Increased density
Refined surface quality
Enabling heat treatment
& welding

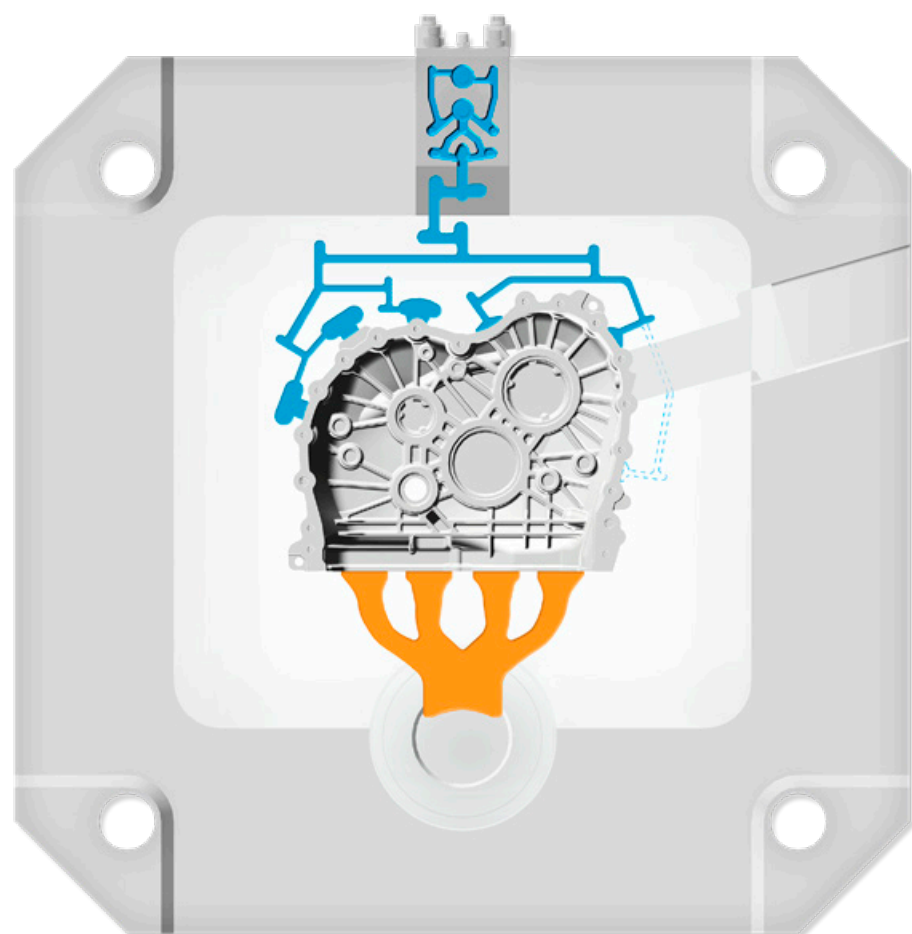




- 1 Half cylinder block (Boxer 2-cylinder motorcycle) / BMW AG
- 2 Hydraulic control unit for gearbox / METALLWERK FRIEDRICH DEUTSCH GmbH for MERCEDES-BENZ AG
- 3 Cylinder block (4-cylinder motor block automobile) / BMW AG
- 4 Shock tower / ALBERT HANDTMANN METALLGUSSWERK GmbH & Co.KG for BMW AG
- 5 Door handle locking armature truck / SCHLIEPER Ges.m.b.H for VOLVO TRUCK CORPORATION
- 6 Car body element / DGS DRUCKGUSS SYSTEME AG for AUDI AG

OUR EXPERTISE

3D studies and
simulations for ongoing
and new projects

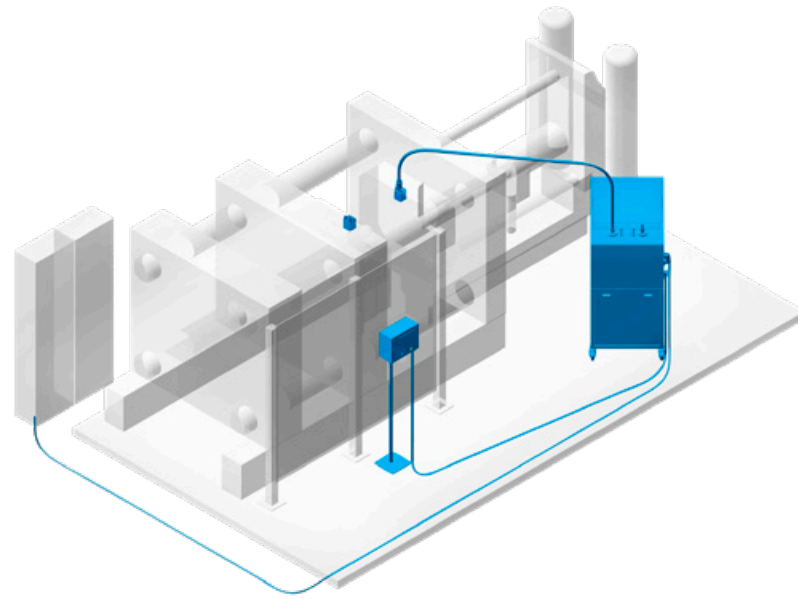


MOLD DESIGN

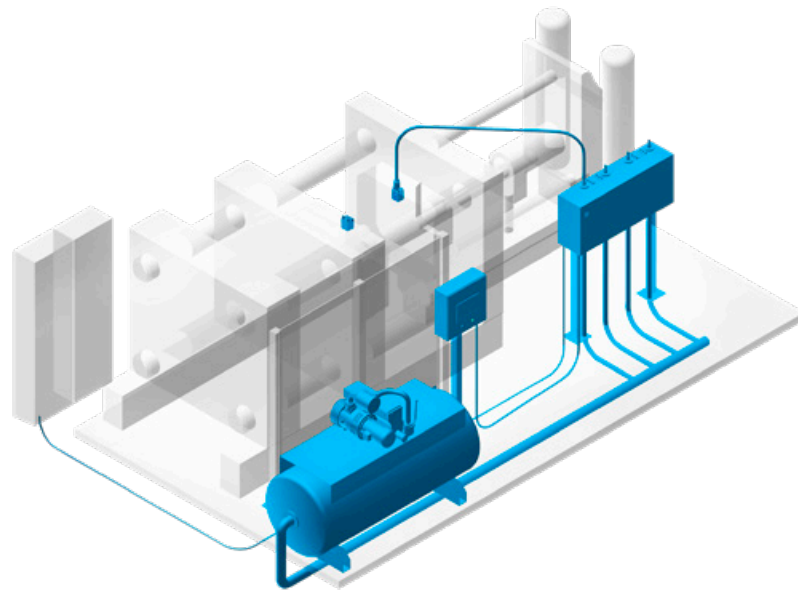
Vacuum application studies
are the matrix for a good technology
integration into your process.

With over 1000 customers in 55 countries,
Fondarex is the design specialist
in gating systems
and vacuum channels.

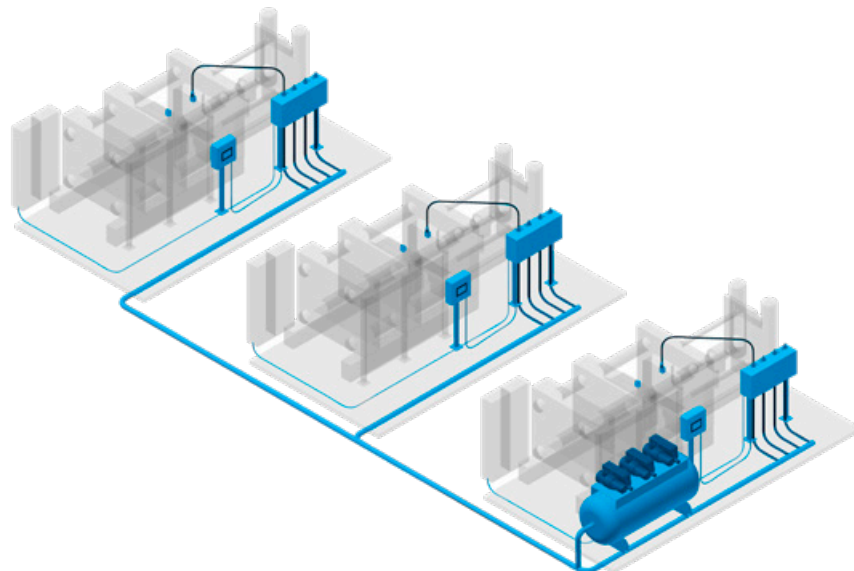
MOBILE SOLUTION



CELL SOLUTION



CENTRAL SOLUTION



HOW TO DEFINE YOUR VACUUM STRATEGY

MOBILE

- Transportable from DCM to DCM
- Compact unit, convenient to use and easy to maintain
- Ideal for DCM up to 3'000t

CELL

- Fixed solution, optimized cell integration
- Separated tank/pump, electro/pneumatic cabinet and control panel, for an accurate operating configuration
- Recommended for high-end projects on DCMs up to 5'500t

CENTRAL

- Fixed solution, with a centralized tank and pump stand for all DCMs
- Separated electro/pneumatic cabinet and control panel close to the DCM
- Advised for a defined die cast part range produced on multiple DCMs of similar sizes

FONDAREX HIGHVAC

PROGRESS / PREMIUM / ULTIMATE

Proven reliability, efficiency and flexibility make the Highvac series the benchmark in vacuum systems worldwide.

Foundries trust our technology and know-how, inspiring us to always go one step further.



FONDAREX MODULAR

Smarter than ever. We developed a new concept in vacuum die casting.

The Fondarex Modular provides intelligent and precise vacuum process control.

We call it Modular, because of its unique ability to cater for your specific requirements.

Hyper user friendly, thanks to a new intuitive interface and integrated communication system.

HIGHLIGHTS

Modular / Mobile
Upgradable / Updatable
Compatible with any DCM
Integrated Communication
Industry 4.0



FONDAREX ONE

The best way to start
your journey in the world
of vacuum die casting.

Do it yourself from installation
to production.

Simple to use and maintain.

Servicing DCM up to 1'000t.



	FONDAREX HIGHVAC PROGRESS			FONDAREX HIGHVAC PREMIUM			FONDAREX HIGHVAC ULTIMATE		FONDAREX MODULAR	FONDAREX ONE
	MOBILE	CELL	CENTRAL	MOBILE	CELL	CENTRAL	CELL	CENTRAL	MOBILE	MOBILE
TANK [l]	200 500 800	1'000 2'000	／	200 500 800	1'000 2'000 3'000	／	1'000 2'000 3'000	／	500 750 1'000	300
PUMP [m³/h]	25 40 60 100	100 160 200	／	25 40 60 100	100 160 200	／	100 160 200	／	40 60 100	40
CHANNELS	2	2	2	2	2	2	4	4	2	1
EVACUATION SECTION [mm²]	2 x 500	2 x 500	2 x 500	2 x 800	2 x 800	2 x 800	4 x 800	4 x 800	2 x 800	1 x 800
VACUUM PROCESS CONTROL	Standard functions	Standard functions	Standard functions	Higher grade functions	Higher grade functions	Higher grade functions	Higher grade functions	Higher grade functions	Newly designed visualisation, intuitive controls	Basic functions
VACUUM REGULATION	×	×	×	✓	✓	✓	✓	✓	✓ Real time	×
AIR VOLUME MEASURE	×	×	×	✓	✓	×	✓	×	✓	×
LEAK TEST	×	×	×	✓	✓	✓	✓	✓	✓	×
READY FOR PROFINET/ PROFIBUS	×	×	×	✓	✓	✓	✓	✓	✓	×
DATA MANAGE- MENT	Internal log data	Internal log data	Internal log data	Data communication	Data communication	Data communication	Data communication	Data communication	Data analysis & communication	Internal log data
HARDWARE UPGRADABLE	×	×	×	×	×	×	×	×	✓ At any given time	×
FOOTPRINT L x D [m]	0,8 x 0,9 0,8 x 1,3 0,8 x 1,3	2,5 x 0,9 3,0 x 1,1	0,8 x 0,3	0,8 x 0,9 0,8 x 1,3 0,8 x 1,3	2,5 x 0,9 3,0 x 1,1 3,1 x 1,2	0,8 x 0,3	2,5 x 0,9 3,0 x 1,1 3,1 x 1,2	1,5 x 0,4	0,8 x 1,3 0,8 x 1,4 0,8 x 1,5	0,7 x 0,8
DCM [t]	Up to 600 Up to 1'400 Up to 2'000	Up to 2'000 Up to 4'000	／	Up to 600 Up to 1'400 Up to 2'000	Up to 2'000 Up to 4'000 Up to 5'500	／	Up to 2'000 Up to 4'000 Up to 5'500	／	Up to 1'400 Up to 2'200 Up to 3'000	Up to 1'000
TYPE OF DIE CAST PROJECTS	Standard parts	Standard parts	Standard parts	High-end parts	High-end parts	High-end parts	Structural parts	Structural parts	All parts	Standard parts

FONDAREX SUPERVAC

7 decades of continuous engineering
have made our Supervac valves
the industry standard.

Experience our mechanical
system to achieve superior quality
in your end-product.

	SUPERVAC MINI		SUPERVAC MEDIO		SUPERVAC MAXI		SUPERVAC MACRO	
Die casting machine tonnage [t]	< 400 approx.		200 – 1200		800 – 2800		1600 – 4500	
Shot weight Al [kg]	0,3 – 1,5		1 – 12		6 – 25		12 – 45	
Shot weight Mg [kg]	0,07 – 1		0,7 – 8		4 – 16		8 – 30	
Shot weight Zn [kg]	0,2 – 4		3 – 20		×		×	
Dimensions	Valve	Compen- sator	Valve	Compen- sator	Valve	Compen- sator	Valve	Compen- sator
Width [mm]	63	63	100	100	140	140	150	150
Depth [mm]	63,4	63,5	88,9	88,9	108	108	139,7	139,7
Height [mm]	76	75	127	126	152	151	171	170



FONDAREX CHILL-BLOCK

The aerodynamic profile of our Chill-Block SCS ensures fast and compact alloy solidification.

No cooling system required.

Simplicity as ultimate sophistication.

	CHILL-BLOCK SCCZ 12		CHILL-BLOCK SCS 30		CHILL-BLOCK SCS 60		CHILL-BLOCK SCS 100		CHILL-BLOCK SCS 140	
Die casting machine tonnage [t]	< 200 approx.		< 400 approx.		200 – 1200		800 – 2800		1600 – 4500	
Shot weight Al [kg]	×		0,1 – 1,5		0,7 – 10		5 – 22		10 – 40	
Shot weight Mg [kg]	0,05 – 0,8		0,07 – 1		0,5 – 6		3 – 12		6 – 26	
Shot weight Zn [kg]	0,1 – 3		0,2 – 4		1 – 20		×		×	
Dimensions	Fixed part	Mobile part	Fixed part	Mobile part	Fixed part	Mobile part	Fixed part	Mobile part	Fixed part	Mobile part
Width [mm]	63	63	63	63	100	100	140	140	150	150
Depth [mm]	63,4	63,5	50	50	50	50	60	60	80	80
Height [mm]	100	99	150	149	250	249	300	299	360	359





WORLDWIDE TECHNICAL SUPPORT

Our experienced engineers
provide support at your production sites.

From the mold conception, installation,
training to the maintenance,
your continued satisfaction
is our main goal.

THÉO COUTURIER
Senior Technical Engineer

FONDAREX





1971
Optivac



1990
Vacupac 4



1993
Minivac



1997
Ecovac



1999
Vacupac 4.1



2003
Vacupac Mini



2004
Vacupac Medio



2004
Vacupac Maxi



2010
Highvac Economy



2010
Highvac Progress



2010
Highvac Premium



2012
Highvac Ultimate



2019
Fondarex Modular



2019
Fondarex One

HISTORY

Fondarex was initially established as a die-casting foundry in Montreux in 1946.

Six years later, we produced the first vacuum system and the era of vacuum die casting began.

Over the years, our developments put a mark on the vacuum die casting industry.



FONDAREX

The pioneer and worldwide leader
in vacuum technology for
high-pressure die casting.

Our Swiss manufacture works
with 95 local suppliers and assembles
each unit by hand, according
to your requirements.

Swiss Made is our identity.

