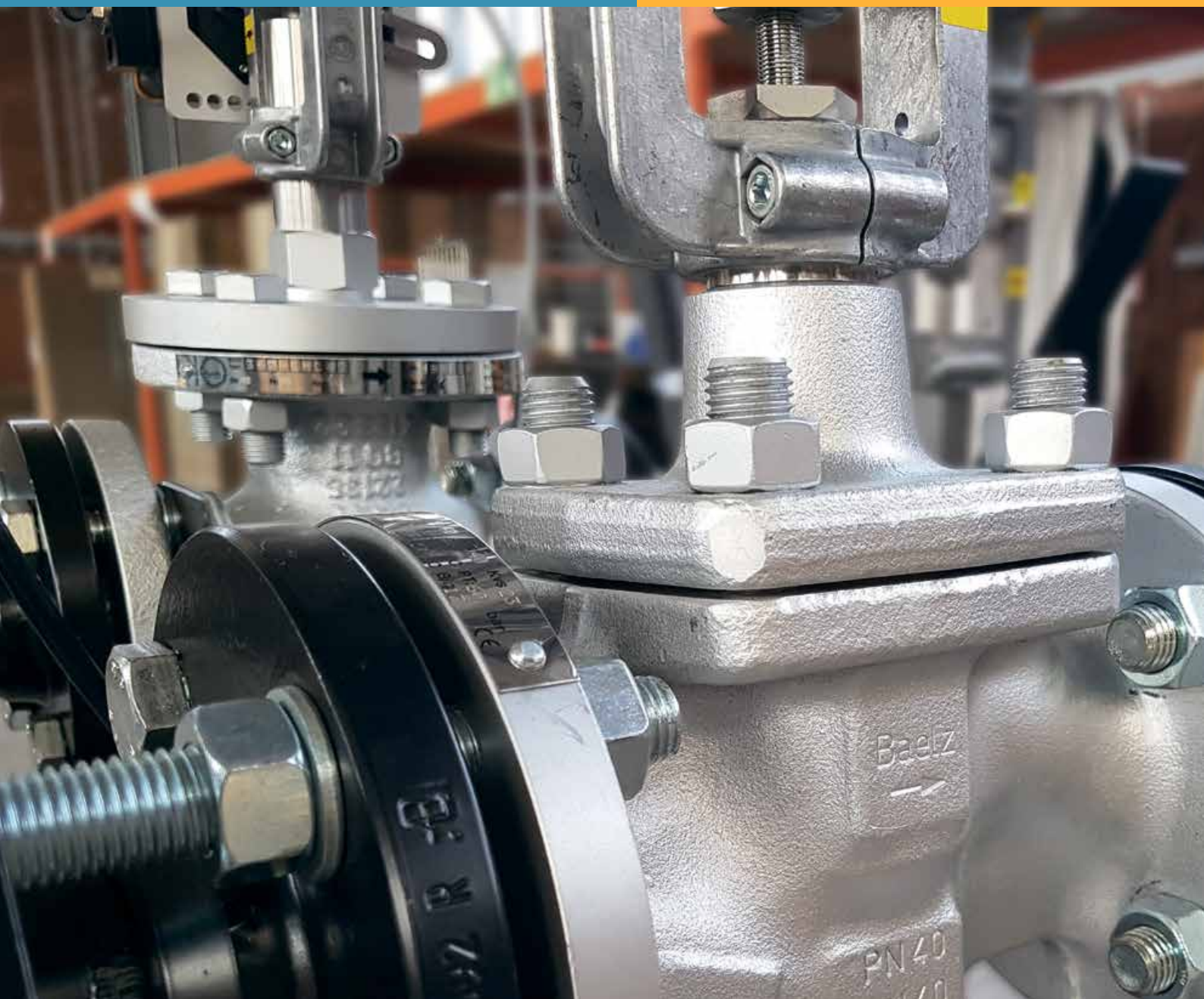




Baelz-electrodyn®



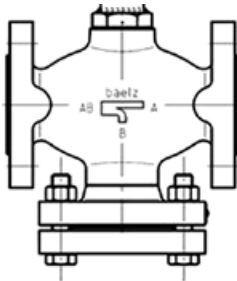
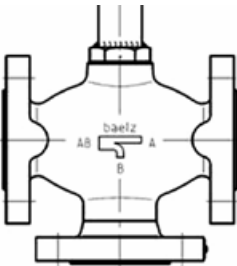
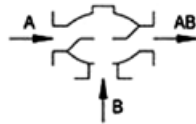
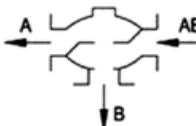
This Sales Brochure intends to give you a slight insight into the Baelz Technology Brand Baelz-electrodyn®. For deeper technical information to our products please ask for further documentation. **Your Baelz Team.**

1. Technology

Control Valves

Thanks to Baelz' decades of experience in developing thermal technology systems, our control valves are manifestly superior in design.

Our portfolio includes electrically and pneumatically driven control valves for water, steam, thermal oil and other media – available in nominal diameters from DN 15 to 300.

2-way-valves	flow direction
	continous flow valve AB → A
	B is closed with a blindflange
	baelz 185, 192, 334, 340, 340-BK-SS, 344, 356, 356-BK-SS, 358, 359, 360, 365
3-way-valves	flow direction
	a) mixing valve A → AB B → 
	Straight way open $\Delta p = p_A - p_B$ Corner way open $\Delta p = p_A - p_{AB}$
	b) diverting valve AB → A → B $\Delta p \text{ max} = 0,6 \text{ bar}$ 
	Straight way open $\Delta p = p_{AB} - p_B$ Corner way open $\Delta p = p_{AB} - p_A$
	A – AB always straight way B – AB always corner way
	baelz 335, 342, 342-BK-SS, 347, 347-BK-SS, 353, 354, 367

SPECIAL FEATURES OF THE DIFFERENT BAE LZ VALVE SERIES

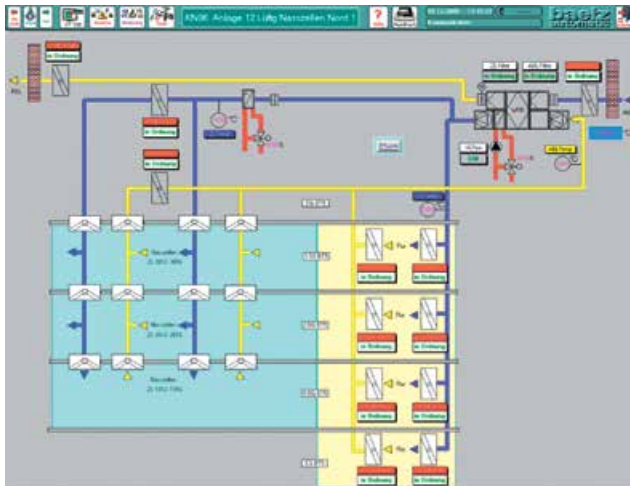
	type	PN	DN	characteristics
2-Way-Valves	baelz 185-VA	40	15	Microflow multi purpose valve, incorporated strainer
	baelz 192	16/40	15–125	Multi purpose self acting pressure reducing valve
	baelz 334	16/25	½" – 1½"	For HVAC, externally threaded
	baelz 340-B, 340-BK	16/25	15–300	High volume selling universal valve, based on 3-way body
	baelz 340-BK-SS	16/25	15–300	For thermal oil applications
	baelz 344	16–40	32–150	Completely stainless steel
	baelz 356-MS, 365-1	16–40	15–65	Standard control valve
	baelz 358-K	63–160	15–125	Recommended for high pressure ranges
	baelz 359-K	63–160	15–125	Recommended for high pressure ranges
	baelz 360-EM	40	32–150	Balanced design
3-Way-Valves	baelz 335	16/25	½" – 1½"	For HVAC, externally threaded
	baelz 342-B; 342-BK	16/25	15–125	High volume selling universal valve
	baelz 342-BK-SS	16/40	15–125	For thermal oil applications
	baelz 347-B, 347-BB	16/25	15–300	Balanced design
	baelz 347-BK-SS; 347-BBK-SS	16/25	15–300	For thermal oil applications
	baelz 353	16–40	15–125	Completely stainless steel
	baelz 354	16–40	32–150	Completely stainless steel

Your advantages at a glance:

- Fast delivery times
- Long life time even in heavy duty applications
- long term spare parts supply
- good price/performance ratio
- Reliability and liability in the statements on the valve
- Special solutions possible
- Solutions not only for the valve, but also for systems or applications

It is important to point out Baelz' strengths whilst being aware of ones own deficits. The potential customer is usually aware of our competitors' weaknesses. Often delivery time and long product life are crucial strengths. Baelz USPs depend on its competitor.

Building Control System



BAELZ WINBAS

The universal Baelz control technology software package WinBAS is highly flexible, adaptable and modular. It offers all the options necessary for comprehensive automation concepts in industry and building automation.

Baelz WinBAS is a:

- Visualization system
- Monitoring system
- Measured value acquisition system
- Control and regulation system
- Simulation system
- Complete GLT BAC system

Interfaces

- MODBUS
- Ethernet/IP
- Profibus
- OPC
- BACnet

Controllers



baelz 7164

integrated controller for temperature in heating systems with the actuator E07

- Reduced susceptibility to interference due to short cable length between controller and sensor
- Reduced mounting costs due to elimination of signal cabling between actuator and controller
- Less space required for control cabinet and PLC as the controller's hardware is located in the actuator
- Control loop as a module reduces the total expenditure for planning/ commissioning in the PLC
- No signal testing on site required due to previous integration and wiring at the factory
- Minimization of installation and wiring procedures on site
- Less coordination effort between heating section and process measuring and control technology section
- Variable characteristic curve depending on outside temperature



baelz 7020

digital positioner for installation in E07

- Automatic adaptation (controller, hysteresis, valve travel time)
- Tight-closing function
- Watchdog monitoring
- Detection and suppression of interfering signals
- Error detection and alarm functions (e.g. Fail-Safe Position)
- Free parameterization software WTP (Modbus RTU)
- User-friendly operation and optimized actuator mounting
- Priority circuit for digital input (e.g. summer/ winter)
- Mechanical manual adjustment on actuator
- Variable valve characteristics with high resolution



baelz 87

Electro-pneumatic positioner for use with pneumatically actuated valves

- Automatic configuration to fit actuator
- Low consumption of compressed air
- Selectable volume restriction for smaller actuators
- Capacitive touch buttons
- Magneto-resistive sensor
- Display rotatable by 180° to suit mounting position
- Tight shut-off function
- Universal mounting set for Baelz actuators

Control Loop Technology

Microprocessors for HVAC Installations and boiler house controls

	Controller	type	panel [mm]	IP 65	signal	inputs analo.	inputs digit.
one loop <ul style="list-style-type: none"> · standard temperature · precision 0,1 % · scalable linear output 	On/off	baelz 6440/1-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6440/2-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6440/3-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	4
	Motorized valve controller without position feedback (open-stop-close)	baelz 6490B/4-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6490/1-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6490/2-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6490/3-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	3
		baelz 6490/5-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6590B/4i-2.4	Rail				1
		baelz 6590B/1-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6590B/2-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6590B/3-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	3
	Controller with continous output	baelz 6496/1-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6496/2-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6496/3-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6596/1-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	1
		baelz 6596/2-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	5
		baelz 6596/3-2.4	96 x 48	x	0/2-10 V, 0/4-20 mA	3	5
	Cascade controller with continous output	baelz 6487/1-2.4	96 x 96	x	0/2-10 V, 0/4-20 mA	3	1
	Cascade controller with motorized valve output	baelz 6497/1-2.4	96 x 96				1
multi loops <ul style="list-style-type: none"> · with additional PT100 and NTC 	Multi loops controller	baelz 6200-192-4	96 x 180		0/2-10 V, 0/4-20 mA	depending on your need	
		baelz 6200-9,5-5	133 x 210		0/2-10 V, 0/4-20 mA		
		baelz 6200-19-10	133 x 210		0/2-10 V, 0/4-20 mA		
	Two loops controller	baelz 6164/2	96 x 82	x	0/2-10 V, 0/4-20 mA		
		baelz 6164/2-W2	96 x 82	x	0/2-10 V, 0/4-20 mA		



2. Add-Ons

In addition to the introduced single baelz valves Baelz recommends quoting/selling the following three Product Sets (only standards represented).

ACTUATOR SET

Electric actuator

baelz 373-E07	baelz 373-E45	baelz 373-E65-11	baelz 373-E65-20
700 N / 2.000 N	4.000 N	1.100 N	2.000 N

Pneumatic actuators

baelz 373-P21	baelz 373-P22	baelz 373-P31	baelz 373-P32
1.020 N – 2.040 N	1.846 N – 3.692 N	2.480 N – 4.960 N	4.402 N

ATTACHMENT SET

Manual fittings:	shut-off valve baelz 70028, check valve 70081, strainer 70200
Temperature indicator/sensor:	baelz 71140, baelz 61
Pressure indicator/transmitter:	baelz 70802, baelz 828
Safety valve:	baelz 70340, baelz 70625-VA
Safety Temperature Limiter:	baelz 231
Safety Pressure Limiter:	baelz 834

In addition to the introduced single baelz controllers Baelz recommends quoting/selling the following three Cross Selling Sets (only standards represented).

CONTROLLER SET

Remote maintenance module "Netbiter"	baelz 5279-NB2
Touchpilot	baelz 5192
Interface converter	baelz 5280
BACnet – Protocol Converter	baelz 5279
Control Unit	baelz 452
Transformer	baelz 6205
Switching power supply	baelz 6208
Measuring amplifier	baelz 6261

3. Real Cases



ENGINEERING

Product: baelz 340-BK-SS DN 65 PN 16+ E07,
baelz 359 DN 65 PN160 + E88

Company/Country: Leistritz/ Germany

Project Description: The sample pump draws the testing medium oil from a pressureless container. In the suction line, the control valve 340-BK-SS is installed. With this, the NPSH value (cavitation pressure of the pump when the flow rate approaches zero) at the pump is indicated. On the pressure side of the pump, three different types of baelz 359 control valve with electric actuators are planned in parallel. So a performance spectrum for the test ranges of 0-160 bar with a variable amount of approx. 200l/h–30m³/h is realized. Due to the possible high differential pressure, the valve type baelz 359 was designed with pressure relief. In this way the valves can handle smaller setting pressures for the electric actuators.

The safety and transparency of Baelz systems, both technically and commercially, are key factors for our success in the business.



TIRE

Product: baelz 340-B + P21

Company/Country: Michelin/ Germany

Project Description: It was necessary for the valves to fit into relatively compact machines. In addition, two valves were controlled by a pneumatic signal of 0.2 to 1.0 bar. The NO valve (cooling) was to work at approx. 0.2 to 0.6 bar – at 0.2 bar 100 % cooling, at 0.6 bar no cooling of the consumers (press). From 0.6 to 1.0 bar the NC valve (heating) was to supply no heating at 0.6 bar and 100 % heat at 1.0 bar. The pneumatic signal comes from a pneumatic control module that controls and regulates the process in the presses.

This system was realized 6 times in total.

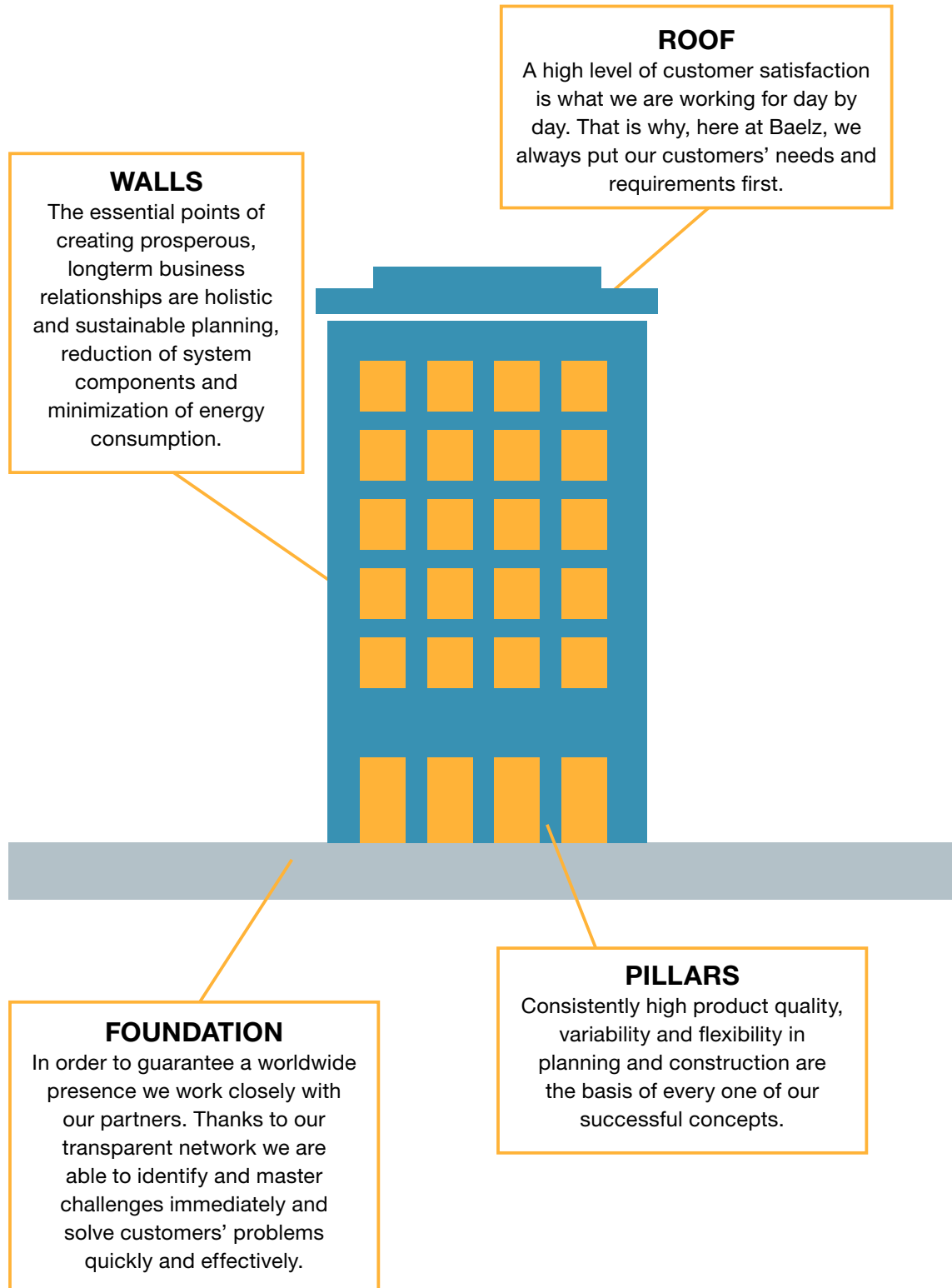
4. Reference Excerpt

product	company	country	branch
baelz 340-B	Mühlbock	Austria	Timber
baelz 34x-BK-SS + E07	Zimmer	Austria	Timber
baelz 342-BK-SS + P21	Steamtec	Austria	Timber
baelz 34x-BK-SS + E07	Daub Backtechnik	Germany	Oven Technology
baelz 34x-BK-SS + E07	Miwe	Germany	Oven Technology
baelz 34x-BK-SS + E07	Karl Lohoff	Germany	Metal Industry
baelz 340-BK-SS + E07, baelz 359 PN160 + E88	Leistritz Nürnberg	Germany	Test Bench
baelz 340-B + P21	Michelin	Germany	Tire
baelz 342-BK + P21 + 87	Autotherm	Sweden	Chemical
baelz 342-BK-SS	Backofenbau Parchim	Germany	Oven Technology
baelz 340, baelz 342	Neue Halberg-Guss	Germany	Metal Industry

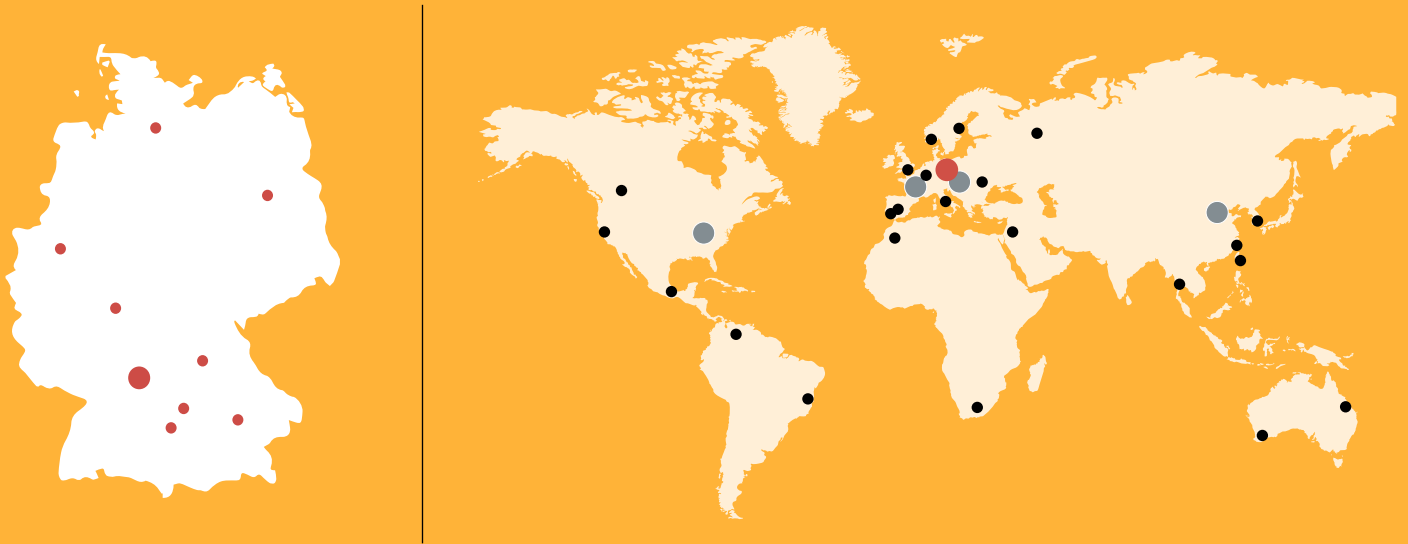
... and much more

Baelz Blueprint

Our Vision Statement



HOT COOL BAE LZ



Baelz-electrodyn[®]
Baelz-vapordynamic[®]
Baelz-hydrodynamic[®]
Baelz-thermodynamic[®]

Save Energy?

Baelz offers solutions worldwide.

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