

Title	Aluminium die-casting - synthetic dataset																																															
Creator / Responsible Partner	CRF																																															
Dataset Identifier	07_SyntheticCRFAlDie-casting_I-BiDaaS_WP2_D2.1_v0.1.zip																																															
DOI	10.5281/zenodo.4321371 ¹																																															
Dataset Description	The dataset has been generated after receiving unstructured sets of a large amount of heterogeneous data from several sources and levels from the production line. CRF analysed all information and selected seventeen parameters (e.g. piston speed in the first and second phase, piston stroke, intensification pressures) of the production of the engine block by die-casting. The synthetic dataset was generated in order to analyse the provided parameters and try to cluster them by identifying those that are most representative of each cluster. The clusterization is useful to identify the behaviour of parameters and help to understand those that affect the quality of the process and products.																																															
Work Package/Deliverable	WP2/D2.1																																															
Source	The generation of the synthetic dataset has been performed using the IBM's Test Data Fabrication Tool (TDF) and generated a formatted text file, convertible into excel that contains million rows, each of one corresponds to subsequent engine blocks produced.																																															
Processing	Data have been processed using the Data Fabrication Tool of IBM																																															
Repository	Zenodo																																															
Language	English																																															
Code list	Abbreviations in data type classification are related to the type of parameter <table><tr><th>Data type classification</th><th>Source/level</th><th>Data Type</th></tr><tr><td>VA1</td><td>Process Parameter</td><td>Number</td></tr><tr><td>VM1</td><td>Process Parameter</td><td>Number</td></tr><tr><td>Sigma1</td><td>Process Parameter</td><td>Number</td></tr><tr><td>PM1</td><td>Process Parameter</td><td>Number</td></tr><tr><td>VA2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>VM2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>Sigma2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>PM2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>StatisticDataT2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>L2</td><td>Process Parameter</td><td>Number</td></tr><tr><td>StatisticDataT3</td><td>Process Parameter</td><td>Number</td></tr><tr><td>L3</td><td>Process Parameter</td><td>Number</td></tr><tr><td>PM3</td><td>Process Parameter</td><td>Number</td></tr><tr><td>PF</td><td>Process Parameter</td><td>Number</td></tr></table>			Data type classification	Source/level	Data Type	VA1	Process Parameter	Number	VM1	Process Parameter	Number	Sigma1	Process Parameter	Number	PM1	Process Parameter	Number	VA2	Process Parameter	Number	VM2	Process Parameter	Number	Sigma2	Process Parameter	Number	PM2	Process Parameter	Number	StatisticDataT2	Process Parameter	Number	L2	Process Parameter	Number	StatisticDataT3	Process Parameter	Number	L3	Process Parameter	Number	PM3	Process Parameter	Number	PF	Process Parameter	Number
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¹ <https://doi.org/10.5281/zenodo.4321371>

	BH	Process Parameter	Number
	RT	Process Parameter	Number
	TT	Process Parameter	Number
Type	Numerical		
Format	csv		
Expected Size	24.47 GB		
Keywords	Process parameters		
Version	V0.1		
Date of Repository Submission	16/12/2020		
Necessary software	<ul style="list-style-type: none"> • IBM's TDF tool is required to create the files • any software able to open formatted txt files (Notepad, Excel ...) is sufficient • the software to analyse data depends on the type of analysis 		
Rights	CRF		
Access Information	Zenodo		