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.4274452[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

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

[1] https://doi.org/10.5281/zenodo.4274452

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	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	08/12/2020		
Necessary software	• 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		

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