

## Obsah - Content

L. BODNÁROVÁ, J. VÁLEK, L. SITEK, J. FOLDYNA & J. KLICH .....	7
Concrete damaged by high temperature – possibilities of treatment with high speed water jet	
J. CÁRACH, S. HLOCH, J. KLICH, P. HLAVÁČEK, D. KLICHOVÁ, K. VASILKO & D. LEHOCKÁ .....	13
Hydro-abrasive machining of rotating workpieces from graphite and aluminium alloy	
L. GLOVACZ .....	23
Hammelmann high pressure piston pumps with operation pressures up to 3500 bar – design for the future	
P. HLAVÁČEK, T. KRUML, J. FOLDYNA, J. TOBIÁŠ & J. MAN .....	29
Effect of pulsating water jet peening on stainless steel	
S. HLOCH, J. KĽOC, J. FOLDYNA, F. PUDE, I. SMOLKO, M. ZELEŇÁK, L. SITEK, P. HVIZDOŠ, P. MONKA, K. MONKOVÁ, D. KOZAK, A. STOIĆ, A. SEDMAK, M. MILOSEVIC, D. LEHOCKÁ & E. MIHALČINOVÁ .....	37
Preliminary study using pulsating water jet for bone cement demolition	
S. HLOCH, P. MONKA, J. PITEĽ, S. CHATTOPADHYAYA, M. SHARIQ, M. SRIVASTAVA & R. TRIPATHI .....	55
The usage of signals of acoustic emission for monitoring the production processes	
S. HLOCH, J. ŠČUČKA, D. LEHOCKÁ & V. SIMKULET .....	65
Surface strengthening of a stainless steel using pulsating water jet technology - evaluation by means of microhardness measurements	
P. HVIZDOŠ, M. ZELEŇÁK & S. HLOCH .....	73
Hardness and elasticity of abrasive particles measured by instrumented indentation	
P. JANDAČKA & V. MÁDR.....	83
Fracture energy of abrasive materials	
D. KINIK, S. HLOCH, A. HOŠOVSKÝ, J. PITEĽ & G. KROLCZYK .....	89
Design of the Model for the On-line Direction of the AWJ Technology based on Neuronal Networks	

J. KLICH & D. KLICHOVÁ.....	103
Study of surface topography of material eroded by pulsating water jet	
D. KLICHOVÁ, J. KLICH & L. GURKOVÁ .....	113
Study of quality of nine aluminium alloys surfaces created using abrasive waterjet	
Z. KRAJNÝ.....	123
Water jet machining of biological materials	
D. LEHOČKÁ, J. KLICH, J. FOLDYNA, S. HLOCH & J. CÁRACH .....	131
Erosion effects evaluation of pulsating water jet on brass EN 12164	
P. MARTINEC & L. SITEK.....	145
Abrasives and possibilities of increase in efficiency of abrasive waterjets	
Z. ŘÍHA .....	157
CFD model of multiphase flow in the abrasive water jet tool	
R. SOBCZAK, J. PRAŽMO, A. PEREC & I. CHMIELIK .....	165
Technological, qualitative and operational parameters of the dust free surface treatment of the three-phase jet, generated in the Sandbot device	
K. SOUČEK, L. SITEK, L. GURKOVÁ & L. GEORGIOVSKÁ .....	179
Use of micro X-ray computed tomography for development and research into waterjets	
J. ŠČUČKA, M. ZELEŇÁK, J. FOLDYNA, D. LEHOČKÁ & H. VOTAVOVÁ.....	195
Visualisation and quantitative analysis of flat continuous water jet structure	
M. ŤAVODOVÁ.....	207
Optimization of abrasive water jet cutting using DoE method	
I. WOLF.....	217
Using high-speed waterjet at the disposal of chemical plant in Stráž pod Ralskem	
M. ZELEŇÁK, J. FOLDYNA, P. MARTINEC, J. CÁRACH, L. GURKOVÁ & D. NOVÁKOVÁ .....	221
Measurement and analysis of abrasive particles velocities in AWJ	