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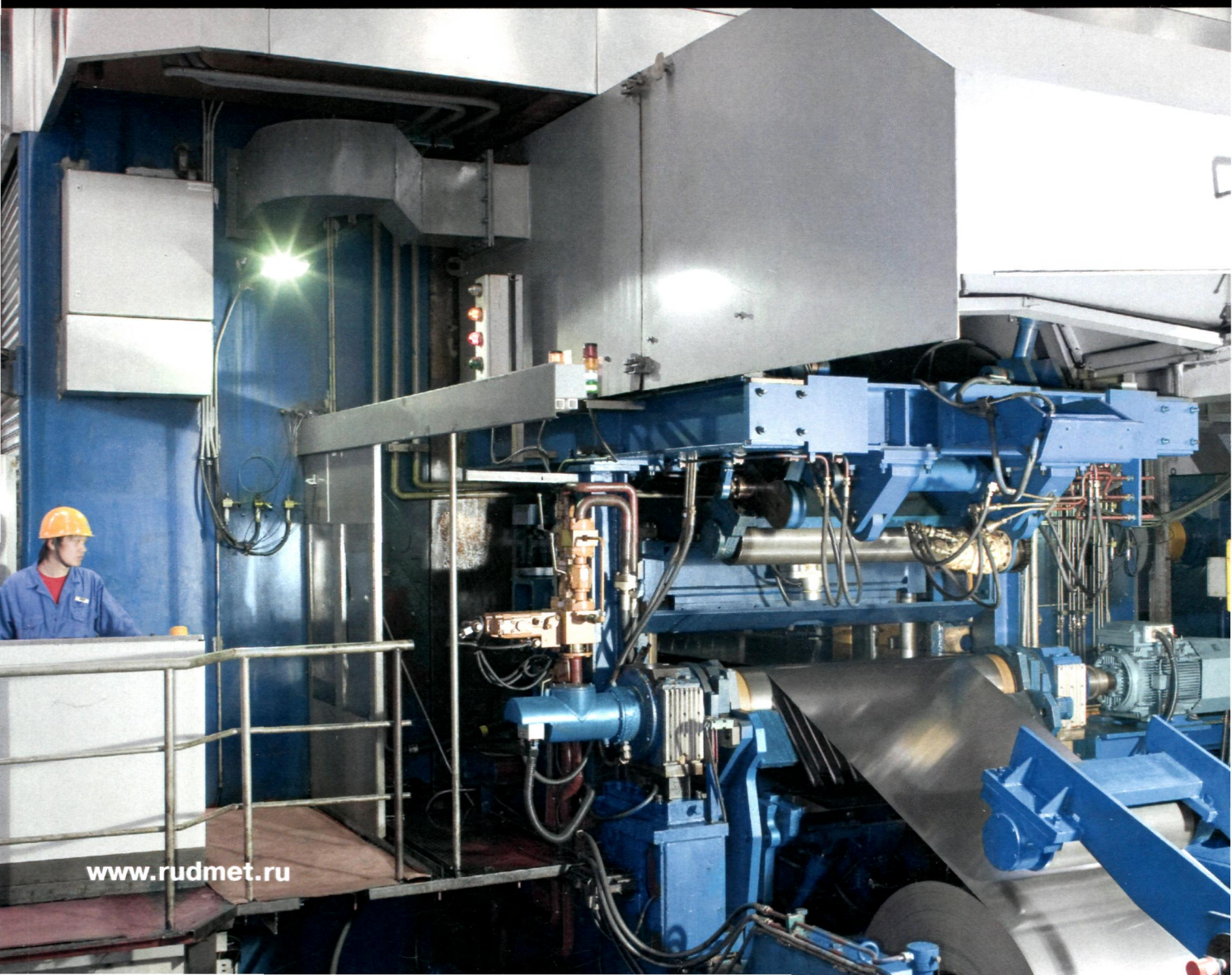
# ЧЕРНЫЕ металлы



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Ежемесячный научно-технический и производственный журнал  
по актуальным проблемам металлургии и машиностроения



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Журнал «Черные металлы» по решению ВАК Министерства образования и науки РФ включен в «Перечень ведущих рецензируемых научных журналов и изданий, в которых должны быть опубликованы основные научные результаты диссертаций на соискание ученой степени доктора и кандидата наук» по металлургии

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<p>The paper describes the new technological order, that is going to appear in those areas, where corresponding technological base is presented; such technological base includes the industrial branches capable to provide material implementation of the projects and their efficient operation, in addition to the new production fields (such as biotechnologies, bioelectronics, nanotechnologies etc.). It is shown that metallurgy is a typical representative of such industrial technological order to play an important role in the global economics, also taking into account the fact that metal products defines mainly development of investment processes and remains the most important resource for realization of such processes.</p> <p><i>Key words: forecasts, prospects, global economics, metallurgical production, development, tendencies, new technological order, technological base, investments, human resources, crisis, automation facilities.</i></p>	
<b>G. I. Nikolaev, S. A. Berkovich, A. V. Drozdov. Analysis of operation of mould shells of "VM-sinus" construction in continuous casting of tube billets</b> .....	16
<p>The paper describes the results of comparative testings of mould shells of "VM-sinus" construction and shells with parabolic taper degree in continuous casting of tube billets with 150 and 156 mm diameter at Sinarsky Pipe Plant. The results of testings have displayed that quality of billets made of crack-sensitive steel grades and cast in "VM-sinus" mould is rather better than quality of billets cast in the parabolic-shaped mould. It was also concluded that intensity of heat stream is higher in "VM-sinus" mould, while macrostructure, geometrical dimensions and billet out-of-rounding corresponded to technical requirements for pipe billets.</p> <p><i>Key words: continuous casting, billets, shell, mould, heat stream, casting rate, steel grades, quality, macrostructure, sine shape, taper degree, concavity.</i></p>	
<b>I. L. Gonik, N. A. Novitsky, V. A. Soloviev. Usage of oily scale for production of briquetted charge material</b> .....	20
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<i>Key words: rolling, rolling mills, sheets, plates, bars, sections, rails, tubes, coating, carbon steels, stainless steels, modernization, putting into practice.</i>	
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<i>Key words: steel making, recycling, sustainable development, wastes, metallurgical production, blast furnace slag, steel making slag, road construction, cement, environmental problems.</i>	

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<i>Key words: continuous casting, thin slabs, rolling, CSP unit, compact strip production, Simetal LevCon, Simetal Mold Expert, automation systems.</i>	

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