

Microsoft Visual C# 8.0.

: 1. //  
1989. 2.  
1988. 3.  
1989. – 214 . 4. Agnieszka Stachowiak. Evolutionary strategies in agile facility design. - Poznan University of Technology, Computing and Management Department, 2001. 5. Kazuhiro Kado. An investigation of genetic algorithms for facility layout problems. – University of Edinburgh, 1995. 6. Norhashimah Morad. Genetic algorithm optimization for the machine layout problem – School of industrial technology university Sains Malaysia, 2003. 7.  
: , 1990.

28.05.07

.. ( « », . )

*Set out has been the theoretical solution of the problem of large-size composite components assembly using subzero temperatures.*

[1],  
( )  
[1],

- [2,3]:
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  - ;
  - .

[4].

« – »

$$D = 1420$$

$$l = 1680$$

$$d = 865$$

$$L=4250$$

. 1.

25,3 .

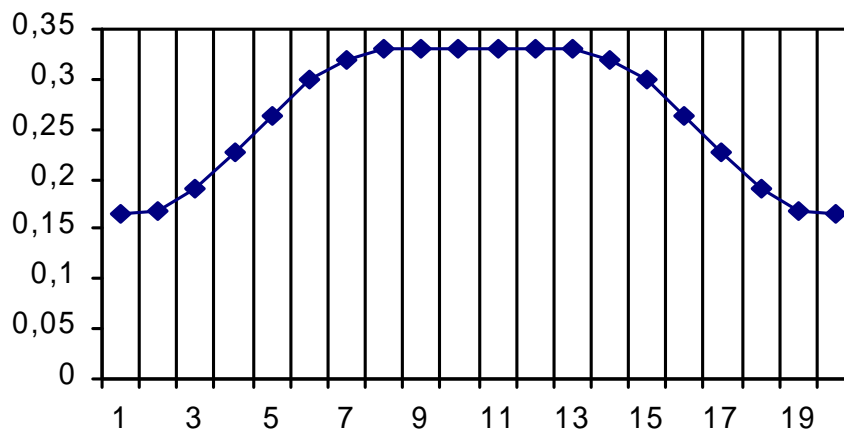
.1

. 1.

	L,	,
1	0	0.16501
2	84	0.16712
3	168	0.19019
4	252	0.22666
5	336	0.26316
6	420	0.29962
7	504	0.32001
8	588	0.33002
9	672	0.33002
10	756	0.33002
11	840	0.33002

. 2.

$\Delta$ ,



L,  
(1680 )

. 1.

ABAQUS [7].

ABAQUS

ABAQUS/Standard (AS),

. AS

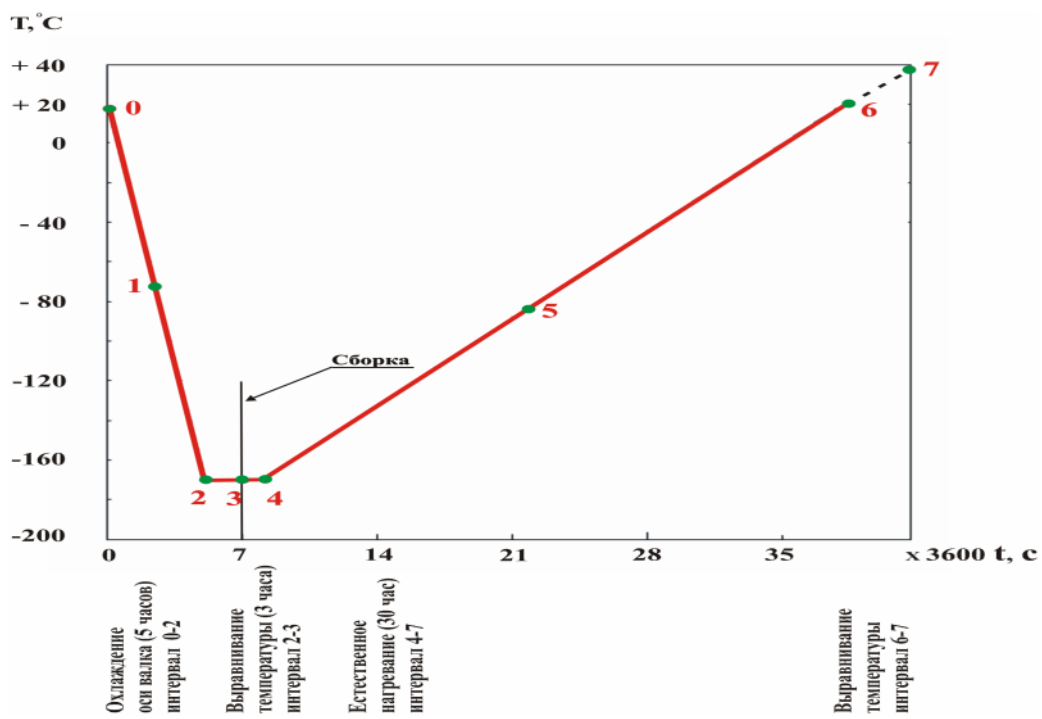
(Thermally Coupled).

AS

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AS

COSMOS WORKS.



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Z,

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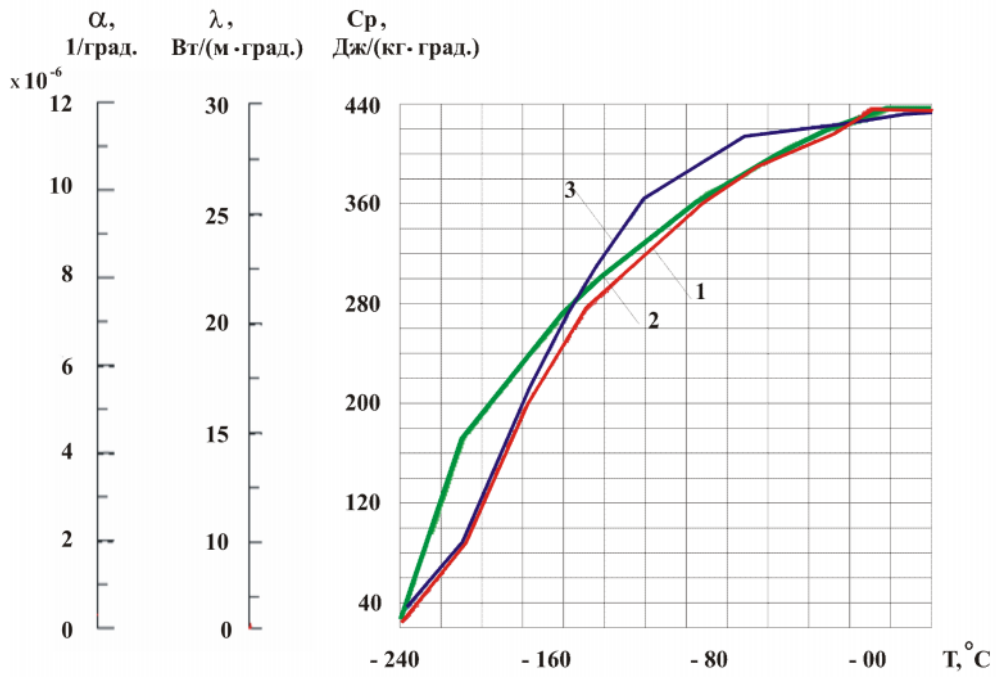
( . 3, 4 .2)

[3, 5 6]. 90

2.

90

, $10^9$	. . 4
$\mu$	0,3
, / $^3$	7800



. 3.

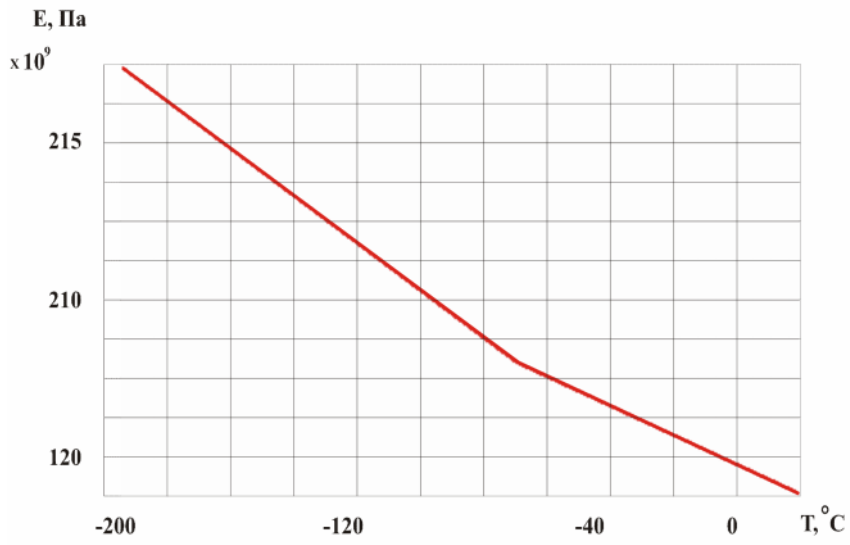
(2) (1), (3) 90

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20  $^{\circ}\text{C}$ ;

+20  $^{\circ}\text{C}$ ;

20  $^{\circ}\text{C}$ .



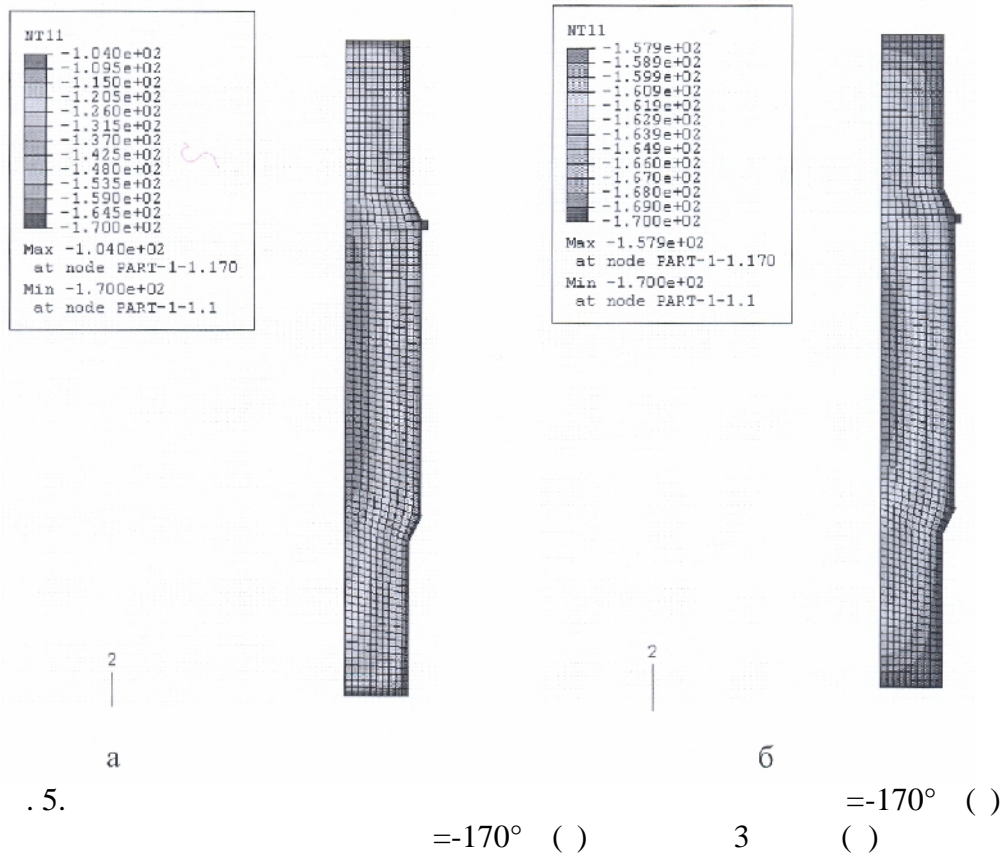
. 4.

90

( . 1)

. 5, 6, 7, 8, 9 10.

. 11

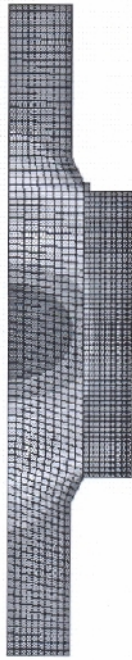
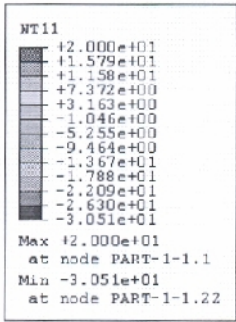


. 5.

=-170° ( )

3

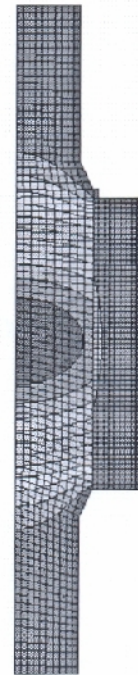
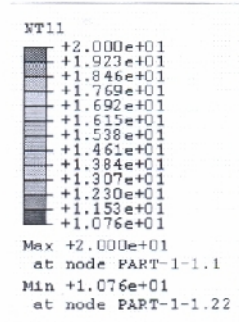
=-170° ( )  
( )



2

a

.6.

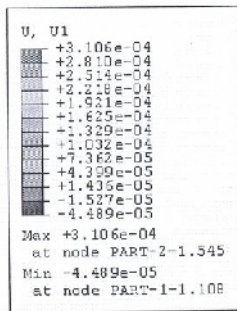


2

b

=-80° ( )

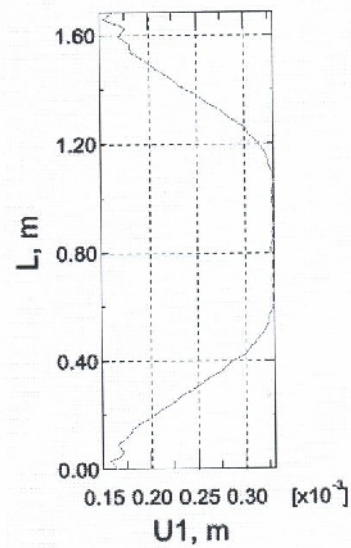
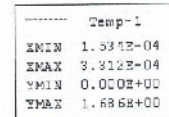
=20° ( )



2

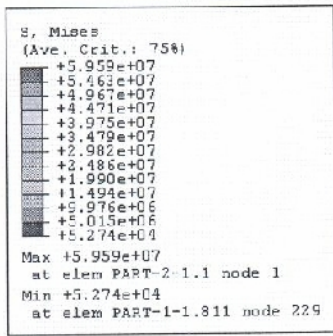
a

.7.

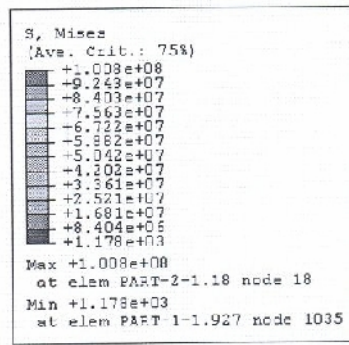


b

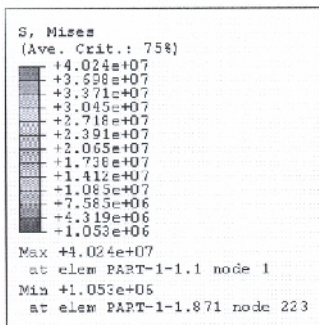
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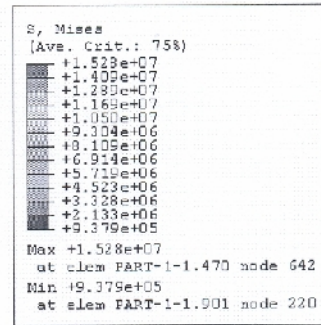
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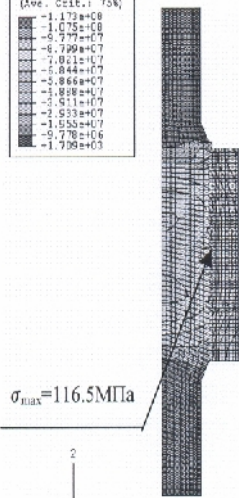
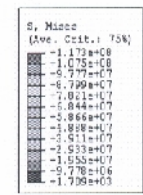
b  
=20° ( )  
=80° ( )



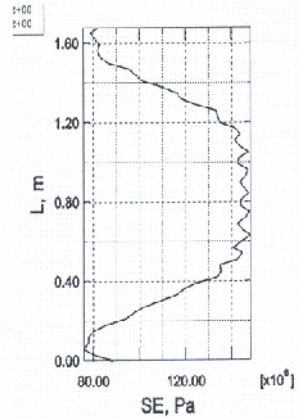
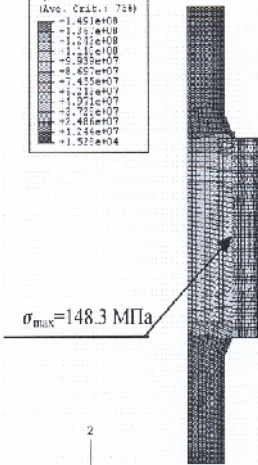
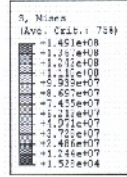
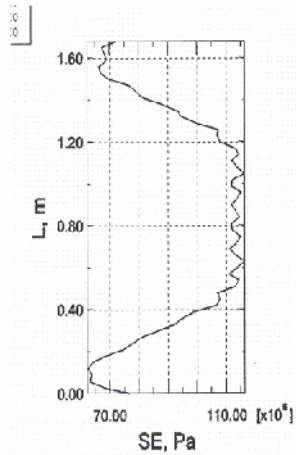
a  
.9.



b  
=170° ( )  
=170° ( )



a



b

. 10.

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( )

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( = - 170 ° ),

22%

: =160,2

( 0,33002 )

0.66003 )

=80,12

( =120,2

108 38 = 2,84.



1. ... .. « .. », 1977. 88 . 2. ... .. , 1987.- 128 . . 3. ... .. , .., 1971, 90 . 4. ... .. / .. : .., 2004. . 28., . 84–94. 5. ... .. , 1982.- 312 . 6. ... .. / .. , .. , .. / .. , 1985, 431 . 7. Complex of certainly - element general-purpose programs, designed the company “Hibbit, Karlsson & Sorensen, Inc” (HKS, USA). License N 44 of JSC «NKMZ». November 2003.

15.05.07

.. ( .. , .. )

*The given work is devoted to questions of accuracy of the form of surfaces of bar-rolling of hire at their processing on machine tools with NC. The received analytical dependences, allow to estimate numerical meanings of an error of the form depending on vector meanings of mistakes admitted at adjustment of the machine tool on operation. The occurrence of errors is submitted by a consequence of infringement of law of a mutual arrangement of coordinate systems of the machine tool and detail.*

“ .. ” .. “ .. ” .. DXW1250/3 CNC-645. Ø700 - Ø900 , 3 20 - 25

[1]

X, Z,