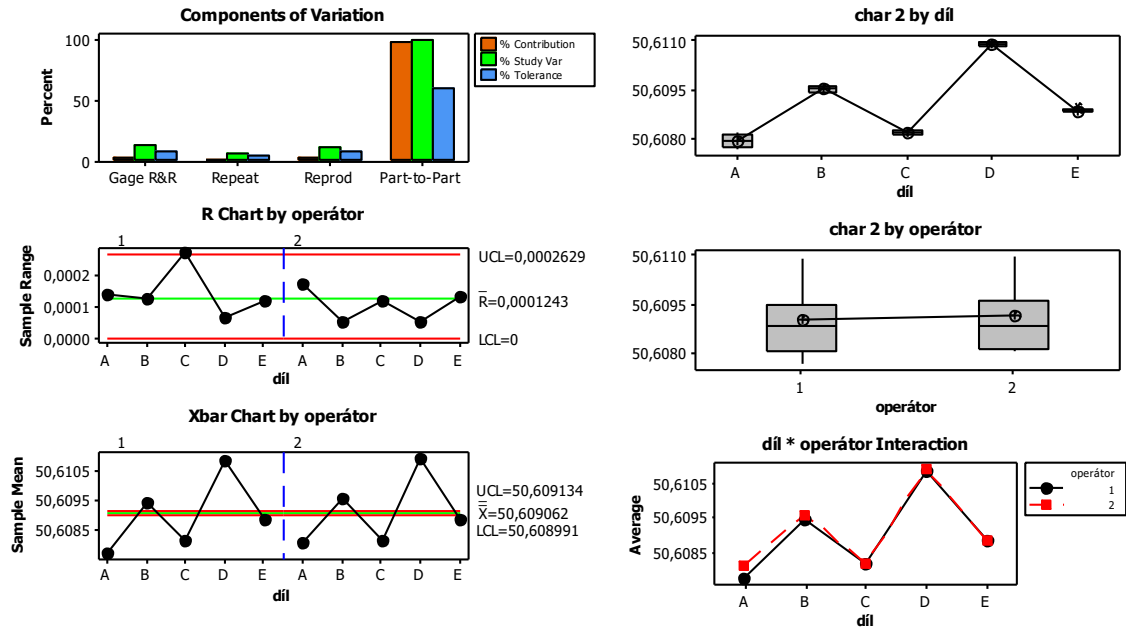


Příloha 1 - Grafické a číselné výstupy ze SW Minitab 16

Gage R&R (ANOVA) for char 2

Gage name: vhodnost MP dle MSA - char2
Date of study:

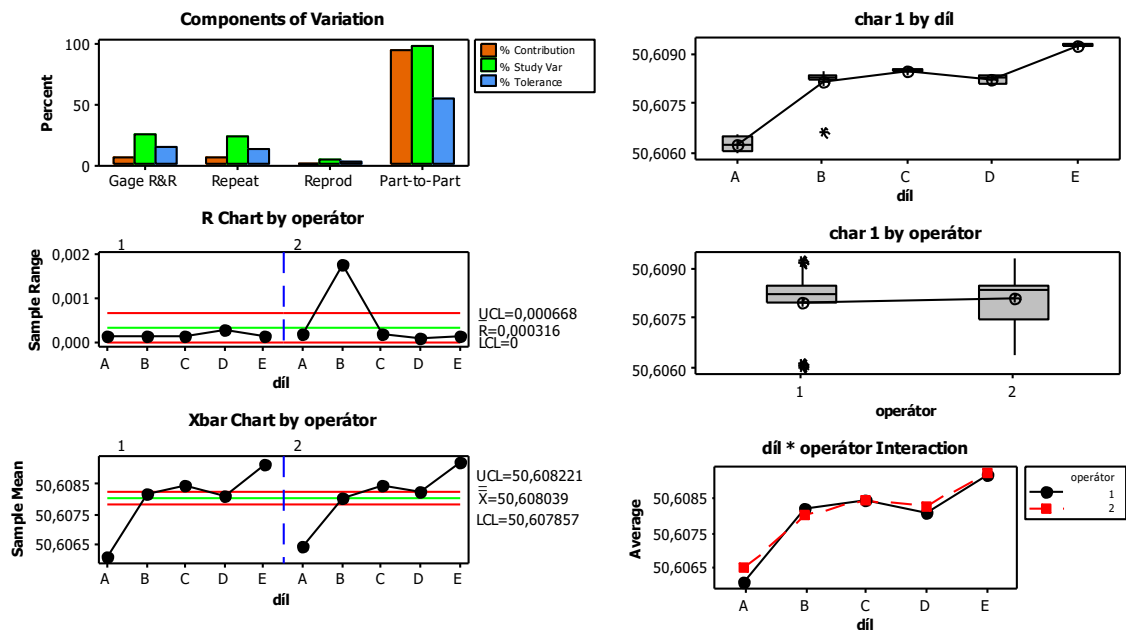
Reported by: Malcekova
Tolerance: 0,012
Misc:



Gage R&R (ANOVA) for char 1

Gage name: vhodnost MP dle MSA - char1
Date of study:

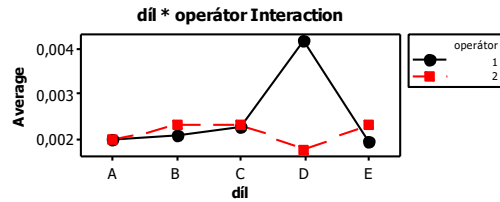
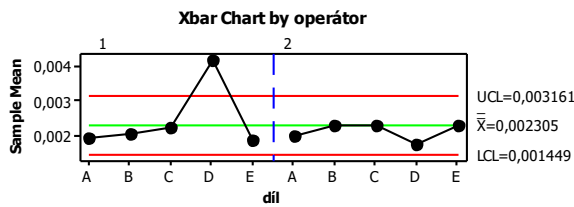
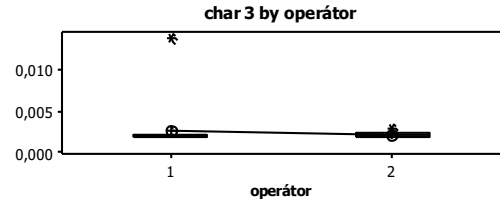
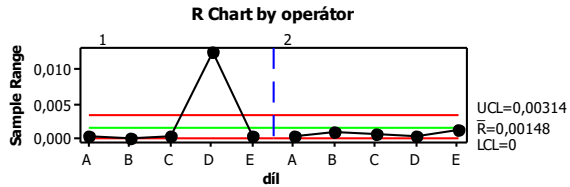
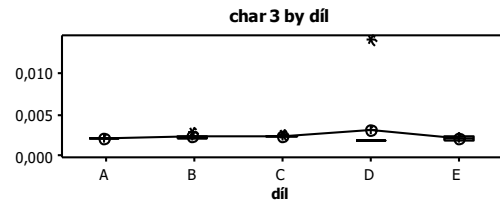
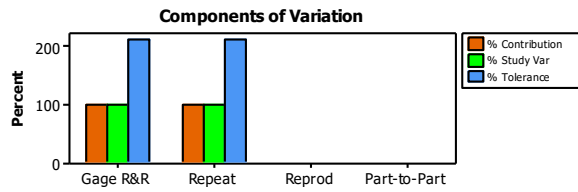
Reported by: Malcekova
Tolerance: 0,012
Misc:



Gage R&R (ANOVA) for char 3

Gage name: vhodnost MP dle MSA - char3
Date of study:

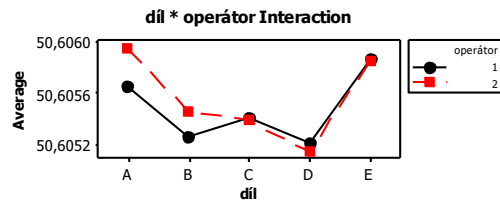
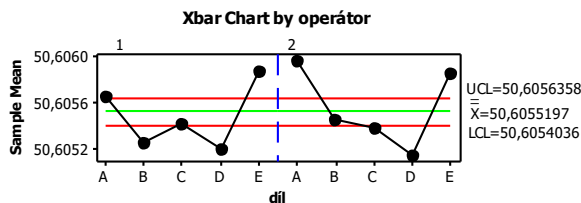
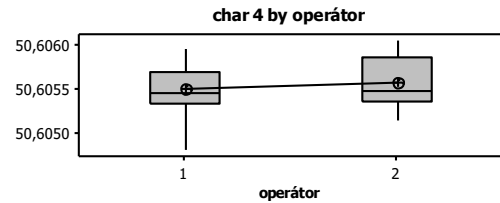
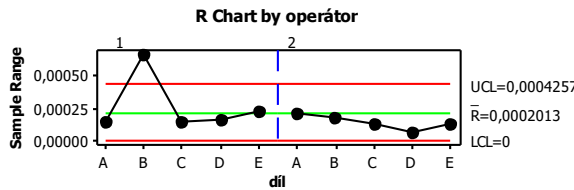
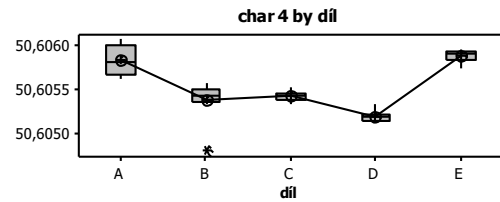
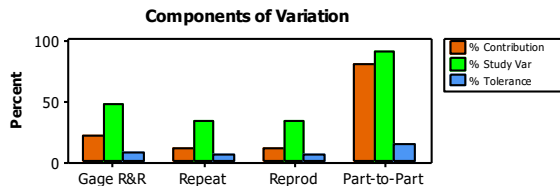
Reported by: Malcekova
Tolerance: 0,005
Misc:



Gage R&R (ANOVA) for char 4

Gage name: vhodnost MP dle MSA - char4
Date of study:

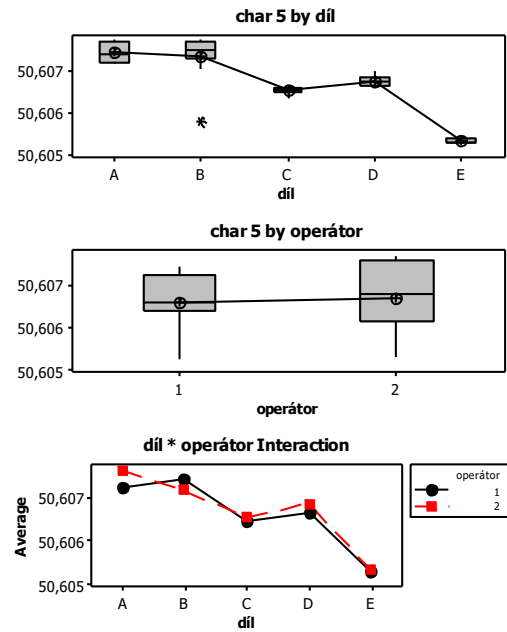
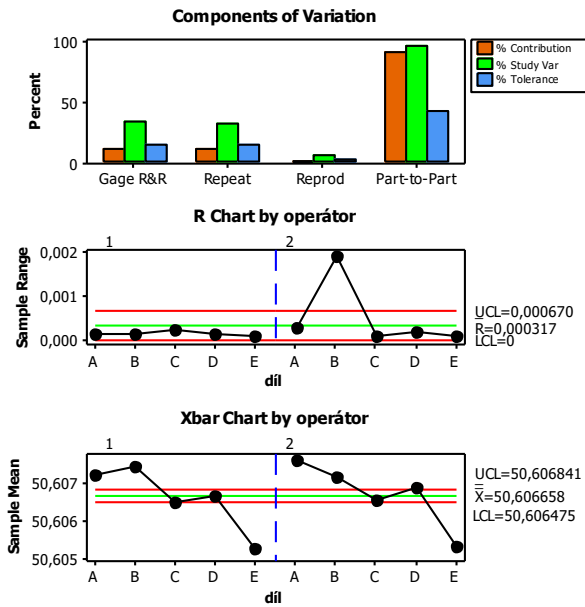
Reported by: Malcekova
Tolerance: 0,012
Misc:



Gage R&R (ANOVA) for char 5

Gage name: vhodnost MP dle MSA - char5
Date of study:

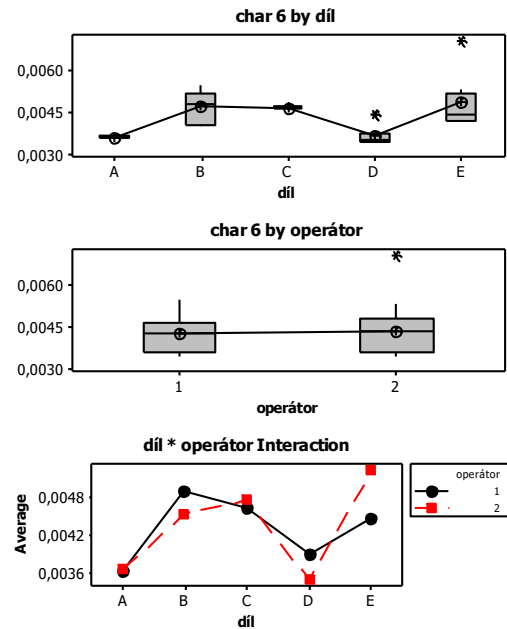
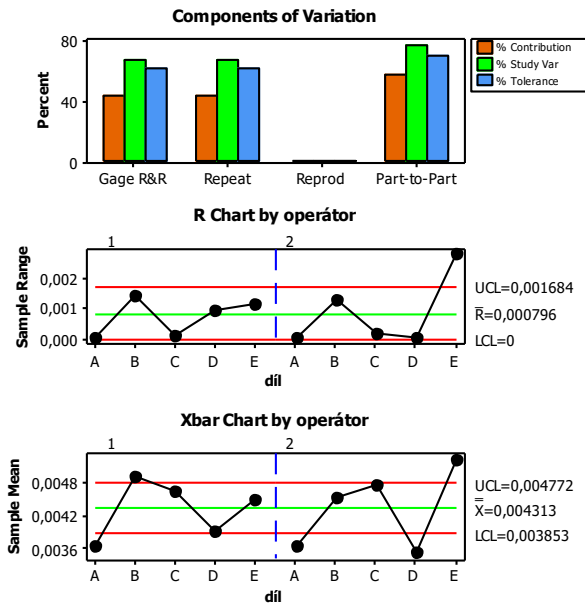
Reported by: Malcekova
Tolerance: 0,012
Misc:



Gage R&R (ANOVA) for char 6

Gage name: vhodnost MP dle MSA - char6
Date of study:

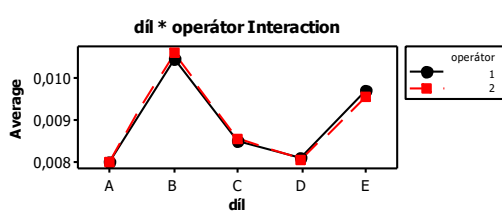
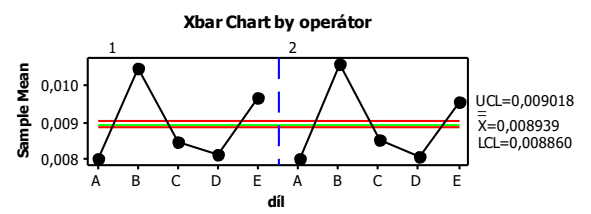
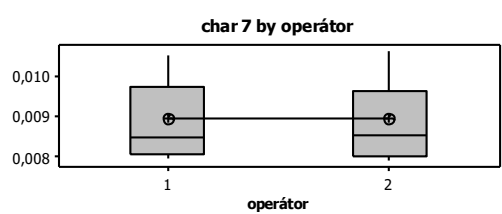
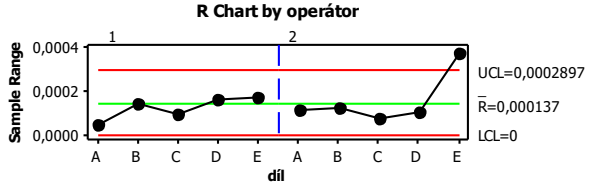
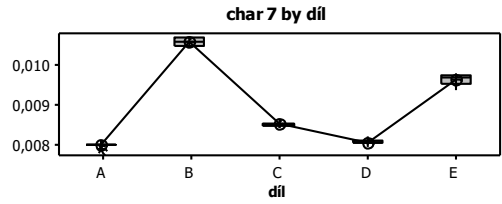
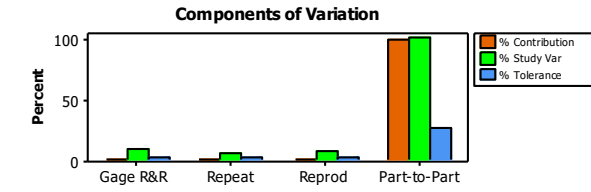
Reported by: Malcekova
Tolerance: 0,005
Misc:



Gage R&R (ANOVA) for char 7

Gage name: vhodnost MP dle MSA - char7
Date of study:

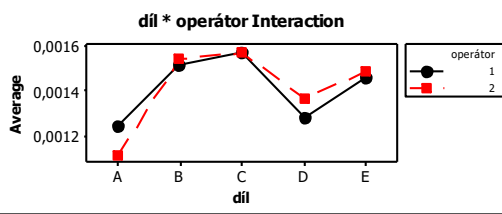
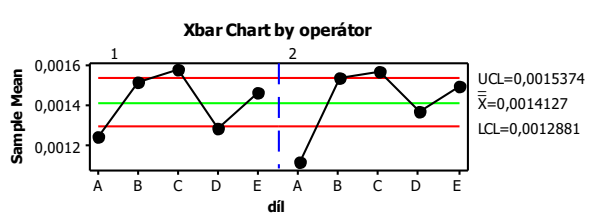
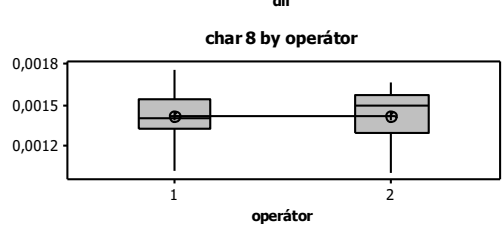
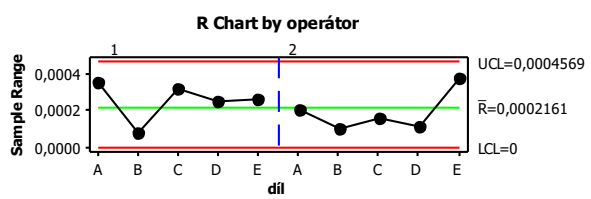
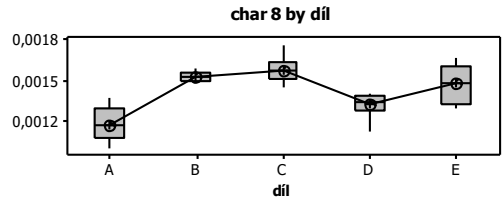
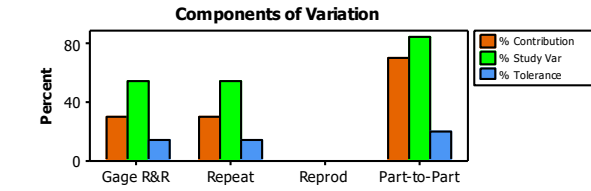
Reported by: Malcekova
Tolerance: 0,025
Misc:



Gage R&R (ANOVA) for char 8

Gage name: vhodnost MP dle MSA - char8
Date of study:

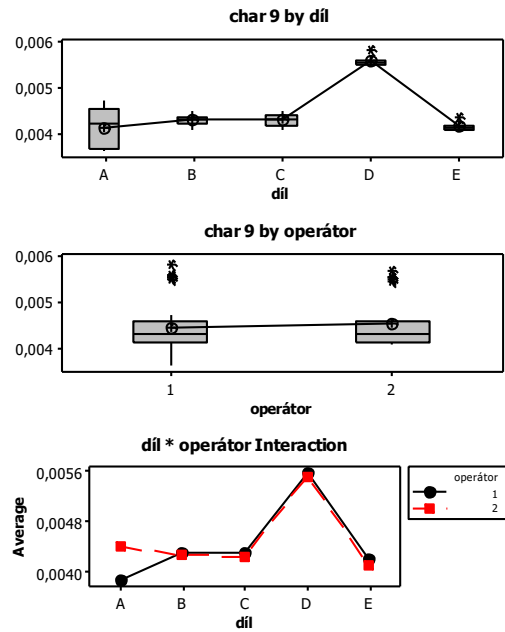
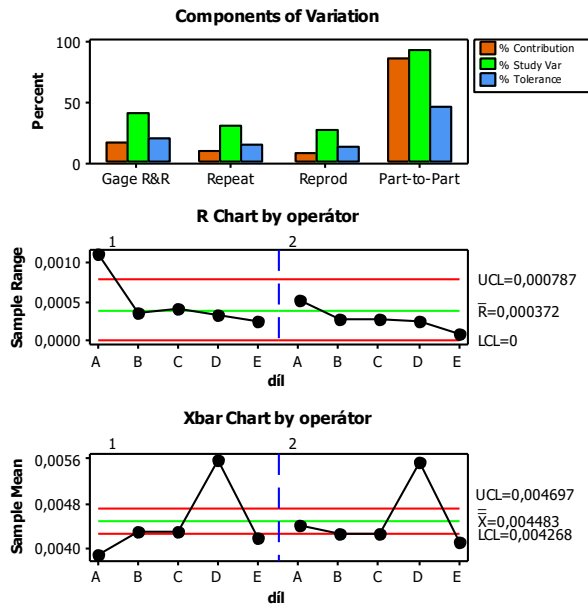
Reported by: Malcekova
Tolerance: 0,005
Misc:



Gage R&R (ANOVA) for char 9

Gage name: vhodnost MP dle MSA - char9
Date of study:

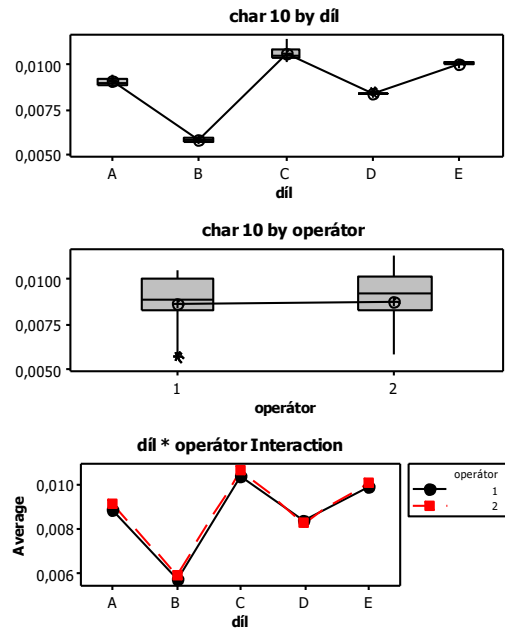
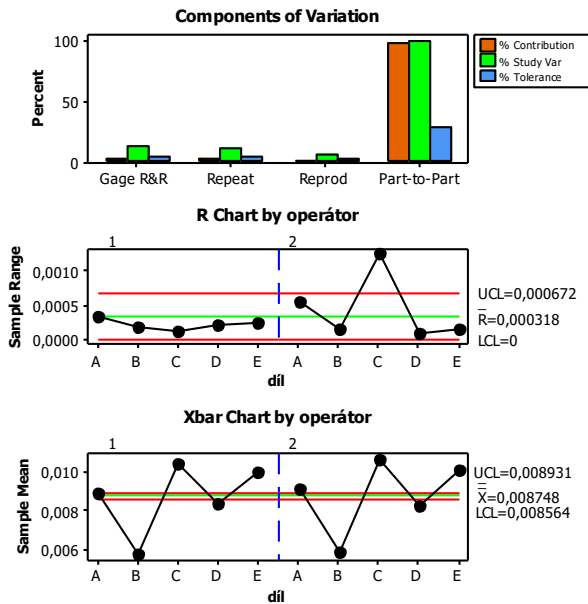
Reported by: Malcekova
Tolerance: 0,008
Misc:



Gage R&R (ANOVA) for char 10

Gage name: vhodnost MP dle MSA - char10
Date of study:

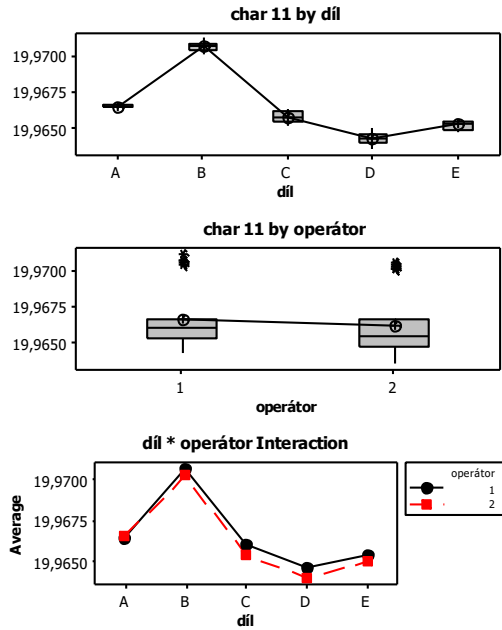
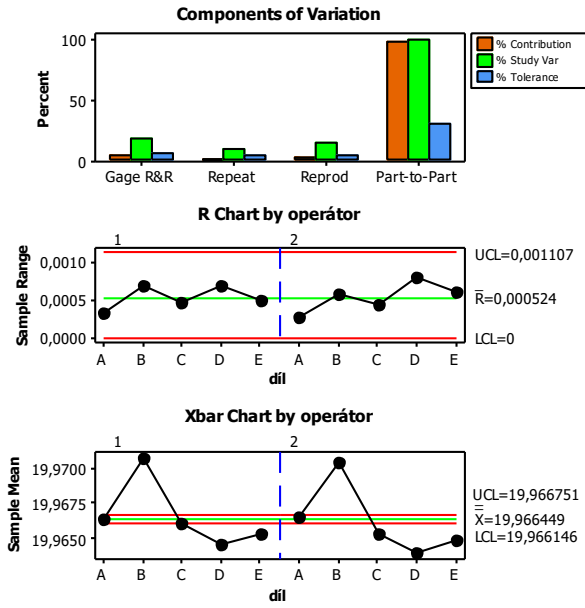
Reported by: Malcekova
Tolerance: 0,04
Misc:



Gage R&R (ANOVA) for char 11

Gage name: vhodnost MP dle MSA - char11
Date of study:

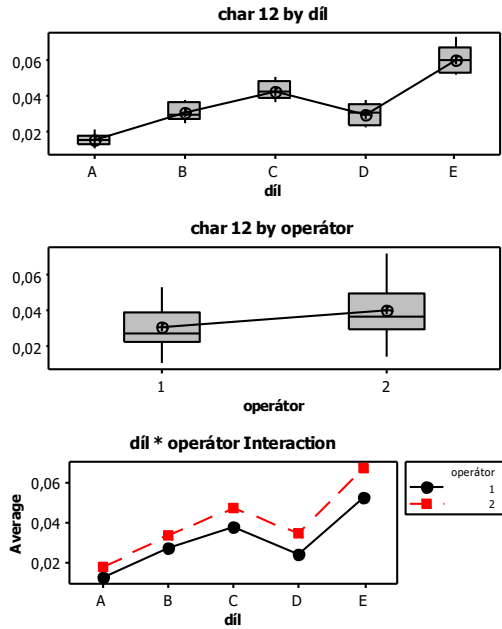
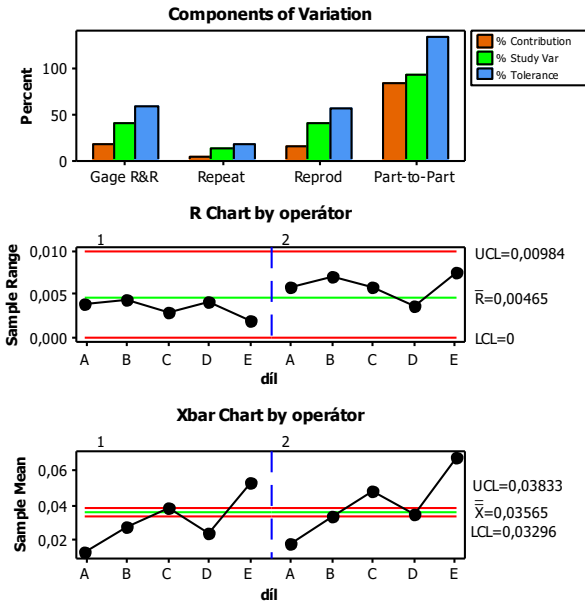
Reported by: Malcekova
Tolerance: 0,05
Misc:



Gage R&R (ANOVA) for char 12

Gage name: vhodnost MP dle MSA - char12
Date of study:

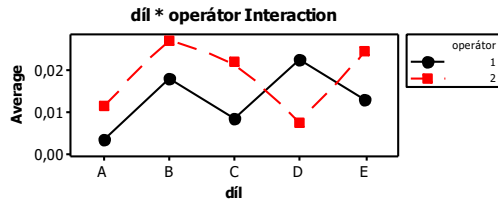
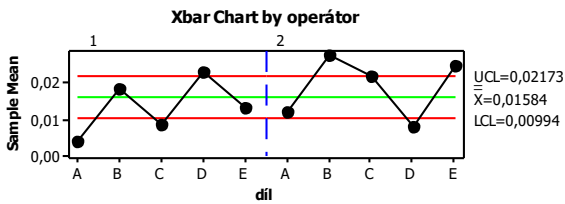
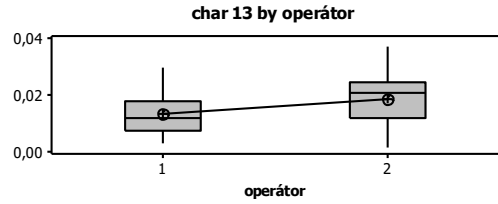
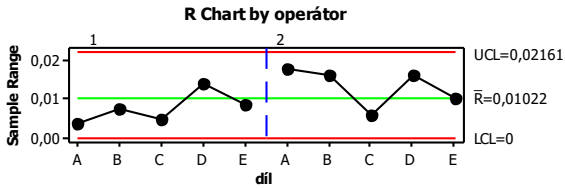
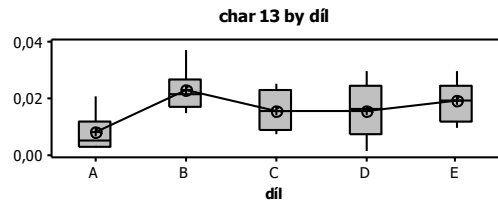
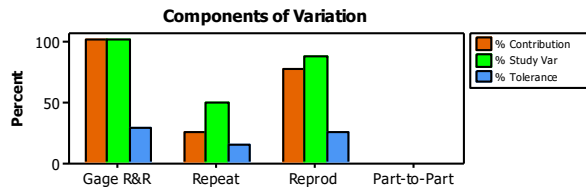
Reported by: Malcekova
Tolerance: 0,075
Misc:



Gage R&R (ANOVA) for char 13

Gage name: vhodnost MP dle MSA - char13
Date of study:

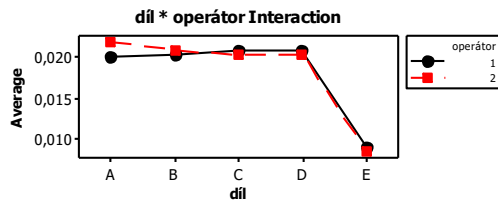
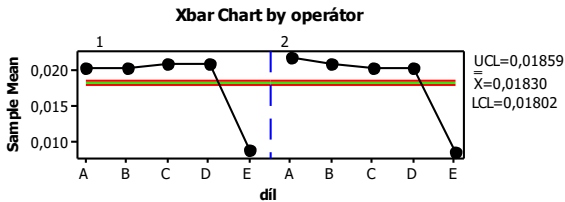
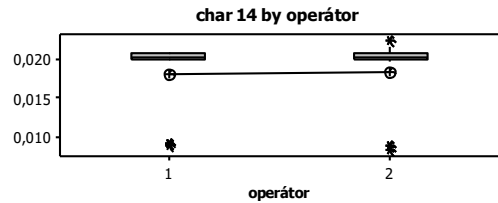
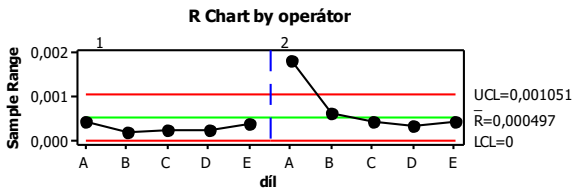
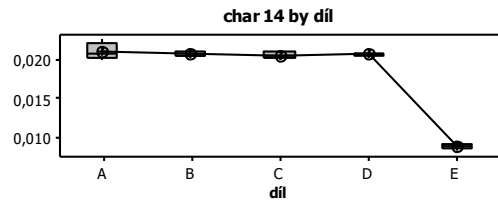
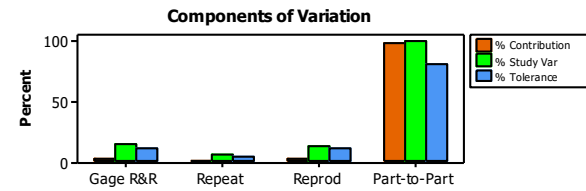
Reported by: Malcekova
Tolerance: 0,2
Misc:



Gage R&R (ANOVA) for char 14

Gage name: vhodnost MP dle MSA - char14
Date of study:

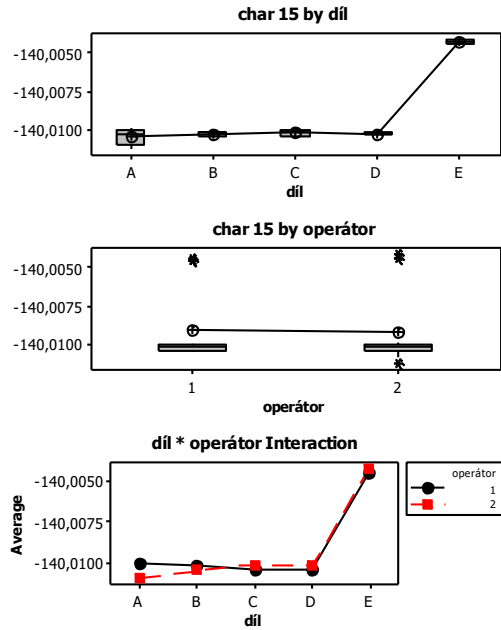
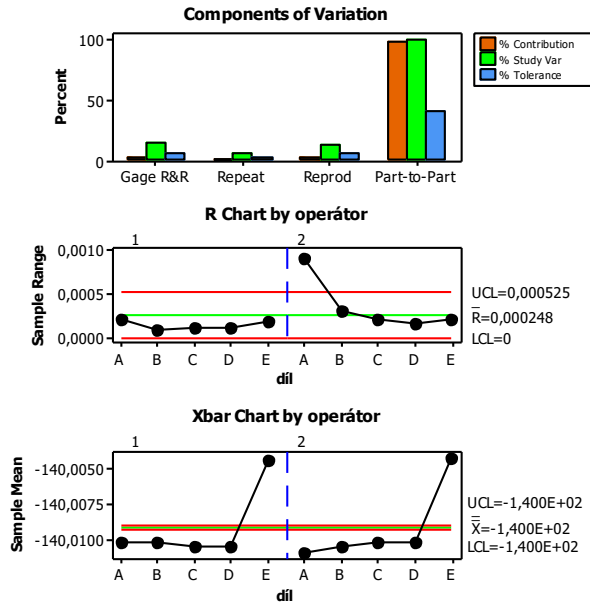
Reported by: Malcekova
Tolerance: 0,04
Misc:



Gage R&R (ANOVA) for char 15

Gage name: vhodnost MP dle MSA - char15
Date of study:

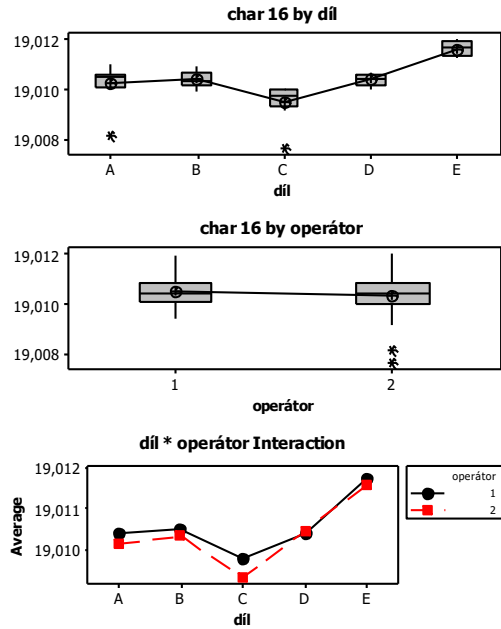
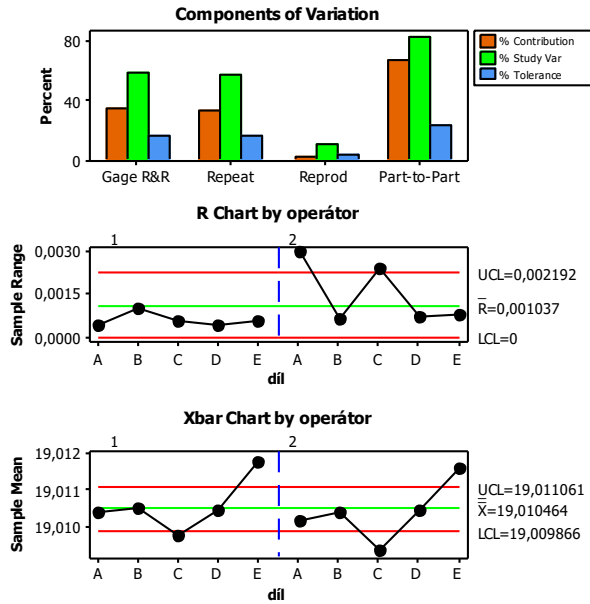
Reported by: Malcekova
Tolerance: 0,04
Misc:



Gage R&R (ANOVA) for char 16

Gage name: vhodnost MP dle MSA - char16
Date of study:

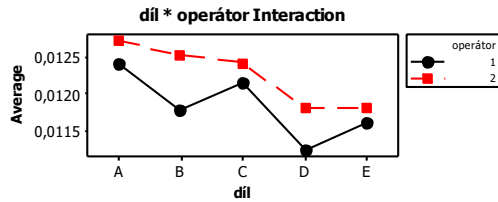
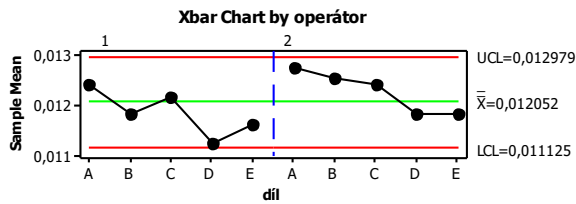
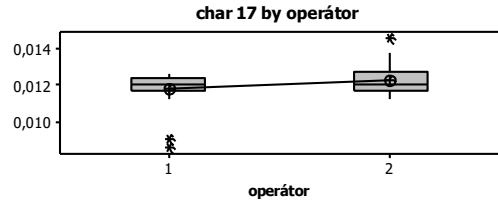
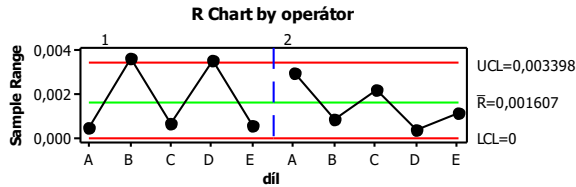
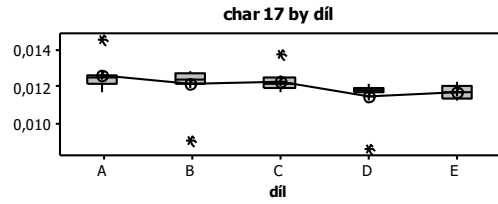
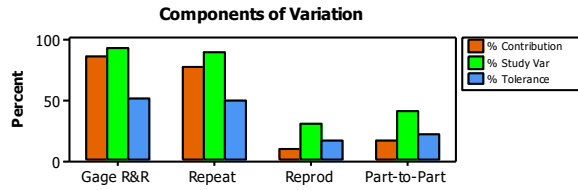
Reported by: Malcekova
Tolerance: 0,02
Misc:



Gage R&R (ANOVA) for char 17

Gage name: vhodnost MP dle MSA - char17
Date of study:

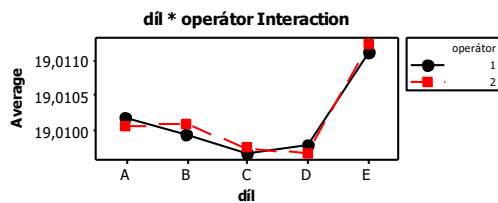
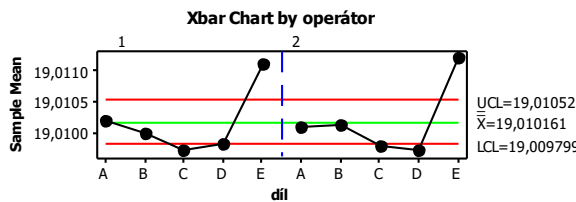
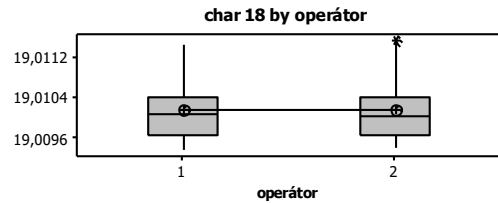
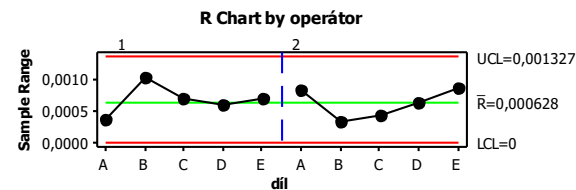
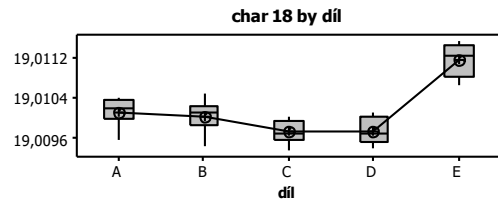
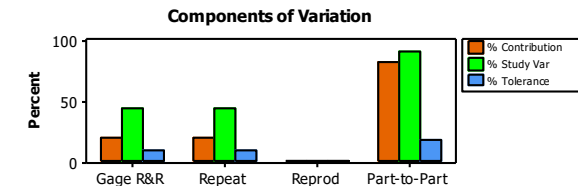
Reported by: Malcekova
Tolerance: 0,01
Misc:



Gage R&R (ANOVA) for char 18

Gage name: vhodnost MP dle MSA - char18
Date of study:

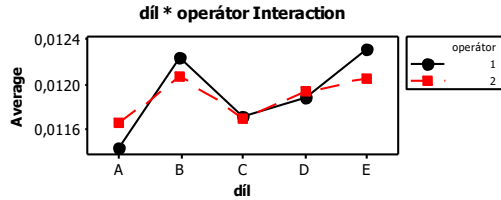
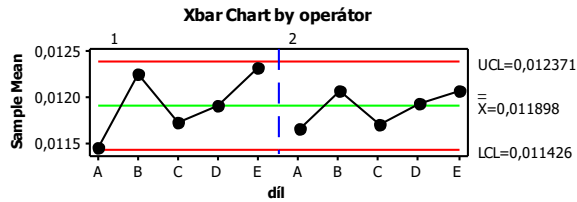
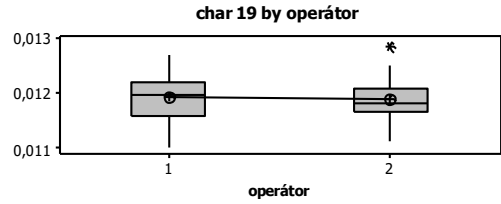
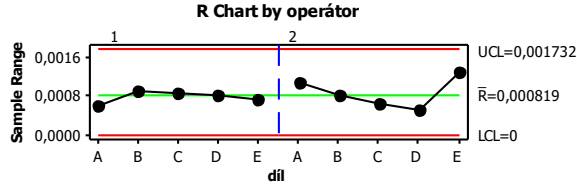
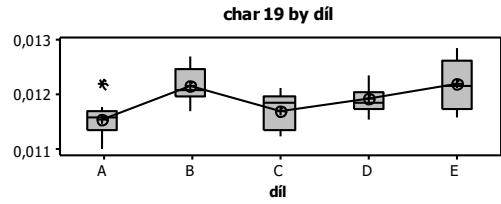
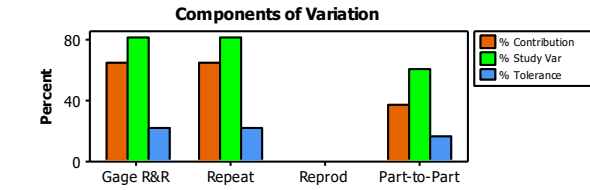
Reported by: Malcekova
Tolerance: 0,02
Misc:



Gage R&R (ANOVA) for char 19

Gage name: vhodnost MP dle MSA - char19
Date of study:

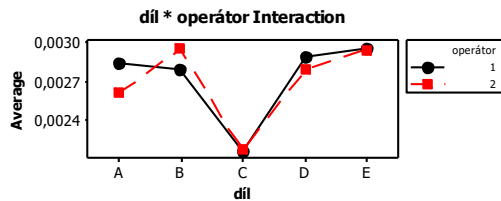
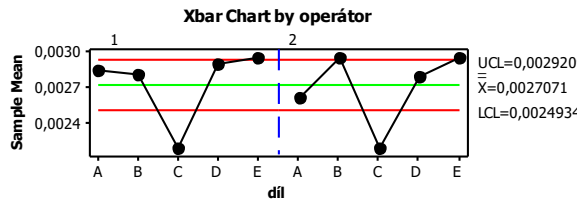
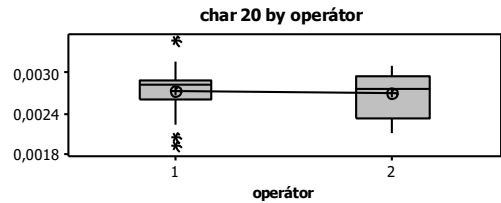
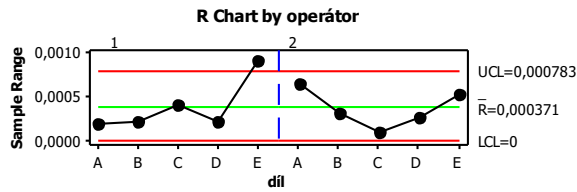
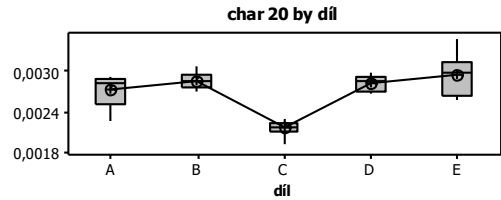
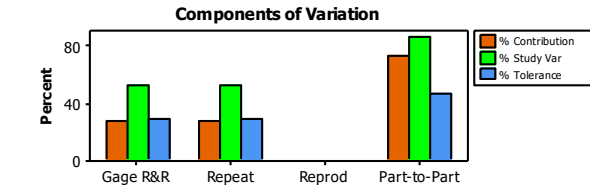
Reported by: Malcekova
Tolerance: 0,01
Misc:



Gage R&R (ANOVA) for char 20

Gage name: vhodnost MP dle MSA - char20
Date of study:

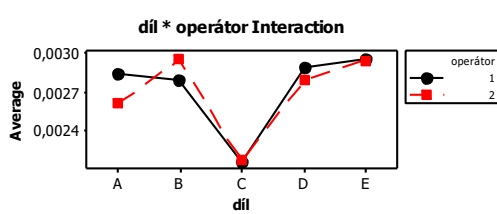
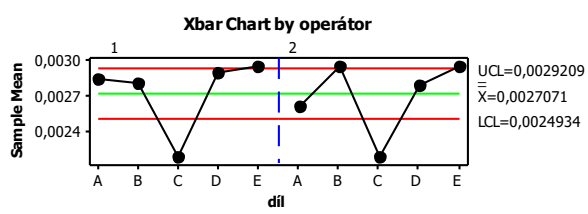
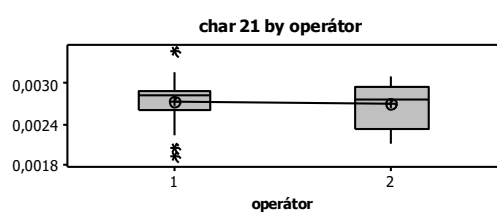
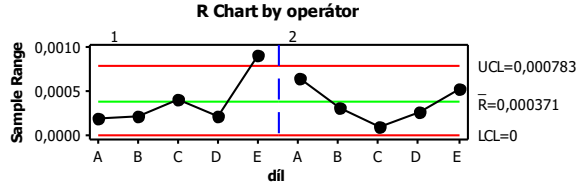
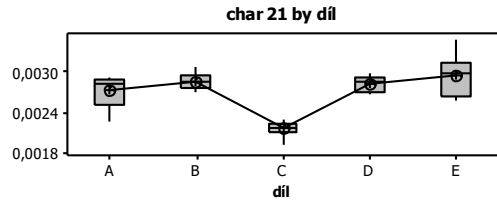
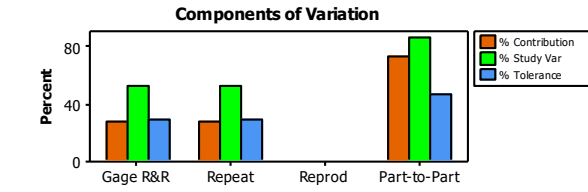
Reported by: Malcekova
Tolerance: 0,004
Misc:



Gage R&R (ANOVA) for char 21

Gage name: vhodnost MP dle MSA - char21
Date of study:

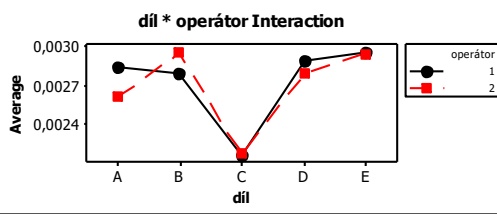
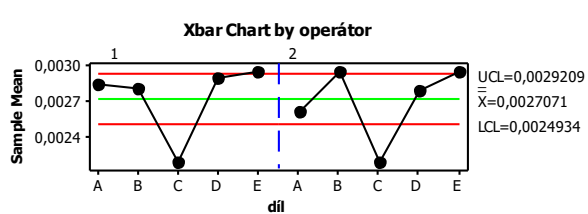
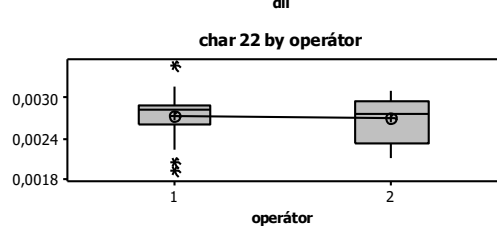
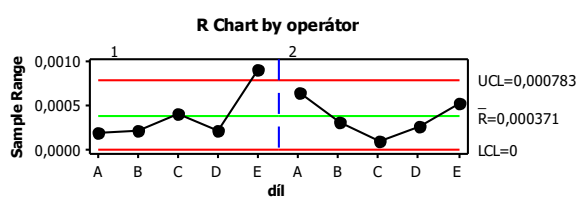
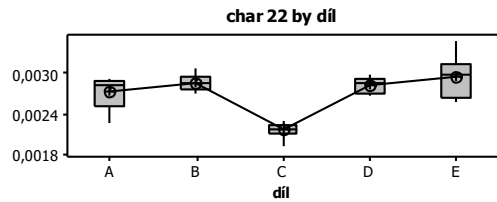
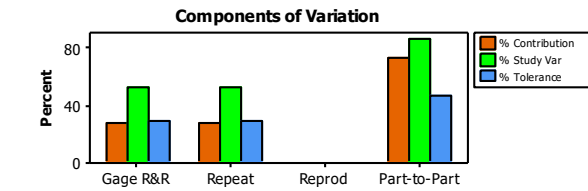
Reported by: Malcekova
Tolerance: 0,004
Misc:



Gage R&R (ANOVA) for char 22

Gage name: vhodnost MP dle MSA - char22
Date of study:

Reported by: Malcekova
Tolerance: 0,004
Misc:



Gage R&R Study - ANOVA Method

Gage R&R for char 1

Gage name: vhodnost MP dle MSA - char1
Date of study:
Reported by: Malcekova
Tolerance: 0,012
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000465	0,0000116	98,4149	0,000
operátor	1	0,0000001	0,0000001	0,9932	0,375
díl * operátor	4	0,0000005	0,0000001	1,8922	0,131
Repeatability	40	0,0000025	0,0000001		
Total	49	0,0000496			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000465	0,0000116	172,250	0,000
operátor	1	0,0000001	0,0000001	1,738	0,194
Repeatability	44	0,0000030	0,0000001		
Total	49	0,0000496			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	5,67
Repeatability	0,0000001	5,51
Reproducibility	0,0000000	0,16
operátor	0,0000000	0,16
Part-To-Part	0,0000012	94,33
Total Variation	0,0000012	100,00

Process tolerance = 0,012

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0002637	0,0015819	23,81	13,18
Repeatability	0,0002598	0,0015591	23,47	12,99
Reproducibility	0,0000447	0,0002679	4,03	2,23
operátor	0,0000447	0,0002679	4,03	2,23
Part-To-Part	0,0010753	0,0064518	97,12	53,76
Total Variation	0,0011071	0,0066429	100,00	55,36

Number of Distinct Categories = 5

Gage R&R for char 1

Gage R&R Study - ANOVA Method

Gage R&R for char 2

Gage name: vhodnost MP dle MSA - char2
Date of study:
Reported by: Malcekova
Tolerance: 0,012
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000556	0,0000139	211,328	0,000
operátor	1	0,0000002	0,0000002	2,683	0,177
díl * operátor	4	0,0000003	0,0000001	22,070	0,000
Repeatability	40	0,0000001	0,0000000		
Total	49	0,0000562			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	1,42
Repeatability	0,0000000	0,21
Reproducibility	0,0000000	1,21
operátor	0,0000000	0,32
operátor*díl	0,0000000	0,89
Part-To-Part	0,0000014	98,58
Total Variation	0,0000014	100,00

Process tolerance = 0,012

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001414	0,0008481	11,93	7,07
Repeatability	0,0000546	0,0003277	4,61	2,73
Reproducibility	0,0001304	0,0007823	11,00	6,52
operátor	0,0000666	0,0003994	5,62	3,33
operátor*díl	0,0001121	0,0006726	9,46	5,61
Part-To-Part	0,0011766	0,0070596	99,29	58,83
Total Variation	0,0011851	0,0071103	100,00	59,25

Number of Distinct Categories = 11

Gage R&R for char 2

Gage R&R Study - ANOVA Method

Gage R&R for char 3

Gage name: vhodnost MP dle MSA - char3
 Date of study:
 Reported by: Malcekova
 Tolerance: 0,005
 Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000061	0,0000015	0,43185	0,782
operátor	1	0,0000015	0,0000015	0,41509	0,554
díl * operátor	4	0,0000140	0,0000035	1,16248	0,342
Repeatability	40	0,0001207	0,0000030		
Total	49	0,0001423			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000061	0,0000015	0,494713	0,740
operátor	1	0,0000015	0,0000015	0,475505	0,494
Repeatability	44	0,0001348	0,0000031		
Total	49	0,0001423			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000031	100,00
Repeatability	0,0000031	100,00
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000000	0,00
Total Variation	0,0000031	100,00

Process tolerance = 0,005

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0017502	0,0105011	100,00	210,02
Repeatability	0,0017502	0,0105011	100,00	210,02
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0000000	0,0000000	0,00	0,00
Total Variation	0,0017502	0,0105011	100,00	210,02

Number of Distinct Categories = 1

Gage R&R for char 3

Gage R&R Study - ANOVA Method

Gage R&R for char 4

Gage name: vhodnost MP dle MSA - char4
Date of study:
Reported by: Malcekova
Tolerance: 0,012
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000036	0,0000009	13,3971	0,014
operátor	1	0,0000001	0,0000001	1,0488	0,364
díl * operátor	4	0,0000003	0,0000001	6,2321	0,001
Repeatability	40	0,0000004	0,0000000		
Total	49	0,0000043			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	21,04
Repeatability	0,0000000	10,22
Reproducibility	0,0000000	10,82
operátor	0,0000000	0,12
operátor*díl	0,0000000	10,69
Part-To-Part	0,0000001	78,96
Total Variation	0,0000001	100,00

Process tolerance = 0,012

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001480	0,0008878	45,87	7,40
Repeatability	0,0001031	0,0006188	31,97	5,16
Reproducibility	0,0001061	0,0006366	32,89	5,31
operátor	0,0000114	0,0000683	3,53	0,57
operátor*díl	0,0001055	0,0006330	32,70	5,27
Part-To-Part	0,0002867	0,0017199	88,86	14,33
Total Variation	0,0003226	0,0019356	100,00	16,13

Number of Distinct Categories = 2

Gage R&R for char 4

Gage R&R Study - ANOVA Method

Gage R&R for char 5

Gage name: vhodnost MP dle MSA - char5
Date of study:
Reported by: Malcekova
Tolerance: 0,012
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000278	0,0000070	46,5176	0,001
operátor	1	0,0000001	0,0000001	0,8679	0,404
díl * operátor	4	0,0000006	0,0000001	2,1757	0,089
Repeatability	40	0,0000028	0,0000001		
Total	49	0,0000313			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000278	0,0000070	91,4348	0,000
operátor	1	0,0000001	0,0000001	1,7060	0,198
Repeatability	44	0,0000034	0,0000001		
Total	49	0,0000313			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	10,21
Repeatability	0,0000001	9,93
Reproducibility	0,0000000	0,28
operátor	0,0000000	0,28
Part-To-Part	0,0000007	89,79
Total Variation	0,0000008	100,00

Process tolerance = 0,012

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0002798	0,0016788	31,95	13,99
Repeatability	0,0002759	0,0016556	31,51	13,80
Reproducibility	0,0000464	0,0002782	5,30	2,32
operátor	0,0000464	0,0002782	5,30	2,32
Part-To-Part	0,0008298	0,0049787	94,76	41,49
Total Variation	0,0008757	0,0052541	100,00	43,78

Number of Distinct Categories = 4

Gage R&R for char 5

Gage R&R Study - ANOVA Method

Gage R&R for char 6

Gage name: vhodnost MP dle MSA - char6
Date of study:
Reported by: Malcekova
Tolerance: 0,005
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000145	0,0000036	6,64652	0,047
operátor	1	0,0000000	0,0000000	0,01473	0,909
díl * operátor	4	0,0000022	0,0000005	2,39619	0,066
Repeatability	40	0,0000091	0,0000002		
Total	49	0,0000259			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000145	0,0000036	14,1325	0,000
operátor	1	0,0000000	0,0000000	0,0313	0,860
Repeatability	44	0,0000113	0,0000003		
Total	49	0,0000259			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000003	43,23
Repeatability	0,0000003	43,23
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000003	56,77
Total Variation	0,0000006	100,00

Process tolerance = 0,005

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0005071	0,0030423	65,75	60,85
Repeatability	0,0005071	0,0030423	65,75	60,85
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0005811	0,0034864	75,35	69,73
Total Variation	0,0007712	0,0046272	100,00	92,54

Number of Distinct Categories = 1

Gage R&R for char 6

Gage R&R Study - ANOVA Method

Gage R&R for char 7

Gage name: vhodnost MP dle MSA - char7
Date of study:
Reported by: Malcekova
Tolerance: 0,025
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000486	0,0000122	382,433	0,000
operátor	1	0,0000000	0,0000000	0,036	0,860
díl * operátor	4	0,0000001	0,0000000	7,663	0,000
Repeatability	40	0,0000002	0,0000000		
Total	49	0,0000489			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	0,79
Repeatability	0,0000000	0,34
Reproducibility	0,0000000	0,45
operátor	0,0000000	0,00
operátor*díl	0,0000000	0,45
Part-To-Part	0,0000012	99,21
Total Variation	0,0000012	100,00

Process tolerance = 0,025

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0000984	0,0005903	8,90	2,36
Repeatability	0,0000644	0,0003865	5,83	1,55
Reproducibility	0,0000744	0,0004462	6,73	1,78
operátor	0,0000000	0,0000000	0,00	0,00
operátor*díl	0,0000744	0,0004462	6,73	1,78
Part-To-Part	0,0011013	0,0066077	99,60	26,43
Total Variation	0,0011057	0,0066340	100,00	26,54

Number of Distinct Categories = 15

Gage R&R for char 7

Gage R&R Study - ANOVA Method

Gage R&R for char 8

Gage name: vhodnost MP dle MSA - char8
 Date of study:
 Reported by: Malcekova
 Tolerance: 0,005
 Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000011	0,0000003	17,1690	0,009
operátor	1	0,0000000	0,0000000	0,0020	0,967
díl * operátor	4	0,0000001	0,0000000	1,5173	0,216
Repeatability	40	0,0000004	0,0000000		
Total	49	0,0000015			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000011	0,0000003	24,8809	0,000
operátor	1	0,0000000	0,0000000	0,0028	0,958
Repeatability	44	0,0000005	0,0000000		
Total	49	0,0000015			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	29,52
Repeatability	0,0000000	29,52
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000000	70,48
Total Variation	0,0000000	100,00

Process tolerance = 0,005

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001037	0,0006224	54,33	12,45
Repeatability	0,0001037	0,0006224	54,33	12,45
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0001603	0,0009617	83,96	19,23
Total Variation	0,0001909	0,0011455	100,00	22,91

Number of Distinct Categories = 2

Gage R&R for char 8

Gage R&R Study - ANOVA Method

Gage R&R for char 9

Gage name: vhodnost MP dle MSA - char9
Date of study:
Reported by: Malcekova
Tolerance: 0,008
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000148	0,0000037	21,1367	0,006
operátor	1	0,0000000	0,0000000	0,2348	0,653
díl * operátor	4	0,0000007	0,0000002	4,8223	0,003
Repeatability	40	0,0000014	0,0000000		
Total	49	0,0000170			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	15,38
Repeatability	0,0000000	8,71
Reproducibility	0,0000000	6,66
operátor	0,0000000	0,00
operátor*díl	0,0000000	6,66
Part-To-Part	0,0000004	84,62
Total Variation	0,0000004	100,00

Process tolerance = 0,008

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0002528	0,0015169	39,21	18,96
Repeatability	0,0001903	0,0011420	29,52	14,27
Reproducibility	0,0001664	0,0009985	25,81	12,48
operátor	0,0000000	0,0000000	0,00	0,00
operátor*díl	0,0001664	0,0009985	25,81	12,48
Part-To-Part	0,0005931	0,0035586	91,99	44,48
Total Variation	0,0006447	0,0038685	100,00	48,36

Number of Distinct Categories = 3

Gage R&R for char 9

Gage R&R Study - ANOVA Method

Gage R&R for char 10

Gage name: vhodnost MP dle MSA - char10
Date of study:
Reported by: Malcekova
Tolerance: 0,04
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0001363	0,0000341	702,060	0,000
operátor	1	0,0000003	0,0000003	5,526	0,078
díl * operátor	4	0,0000002	0,0000000	1,321	0,279
Repeatability	40	0,0000015	0,0000000		
Total	49	0,0001382			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0001363	0,0000341	901,329	0,000
operátor	1	0,0000003	0,0000003	7,095	0,011
Repeatability	44	0,0000017	0,0000000		
Total	49	0,0001382			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	1,36
Repeatability	0,0000000	1,10
Reproducibility	0,0000000	0,27
operátor	0,0000000	0,27
Part-To-Part	0,0000034	98,64
Total Variation	0,0000034	100,00

Process tolerance = 0,04

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0002168	0,0013009	11,67	3,25
Repeatability	0,0001944	0,0011665	10,47	2,92
Reproducibility	0,0000960	0,0005760	5,17	1,44
operátor	0,0000960	0,0005760	5,17	1,44
Part-To-Part	0,0018447	0,0110681	99,32	27,67
Total Variation	0,0018574	0,0111442	100,00	27,86

Number of Distinct Categories = 11

Gage R&R for char 10

Gage R&R Study - ANOVA Method

Gage R&R for char 11

Gage name: vhodnost MP dle MSA - char11
Date of study:
Reported by: Malcekova
Tolerance: 0,05
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0002313	0,0000578	257,089	0,000
operátor	1	0,0000022	0,0000022	9,812	0,035
díl * operátor	4	0,0000009	0,0000002	4,621	0,004
Repeatability	40	0,0000019	0,0000000		
Total	49	0,0002364			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000002	2,76
Repeatability	0,0000000	0,82
Reproducibility	0,0000001	1,93
operátor	0,0000001	1,34
operátor*díl	0,0000000	0,60
Part-To-Part	0,0000058	97,24
Total Variation	0,0000059	100,00

Process tolerance = 0,05

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0004040	0,0024239	16,60	4,85
Repeatability	0,0002206	0,0013237	9,06	2,65
Reproducibility	0,0003384	0,0020306	13,91	4,06
operátor	0,0002816	0,0016894	11,57	3,38
operátor*díl	0,0001877	0,0011265	7,71	2,25
Part-To-Part	0,0024000	0,0143999	98,61	28,80
Total Variation	0,0024338	0,0146025	100,00	29,21

Number of Distinct Categories = 8

Gage R&R for char 11

Gage R&R Study - ANOVA Method

Gage R&R for char 12

Gage name: vhodnost MP dle MSA - char12
Date of study:
Reported by: Malcekova
Tolerance: 0,075
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0112400	0,0028100	77,9521	0,000
operátor	1	0,0011102	0,0011102	30,7976	0,005
díl * operátor	4	0,0001442	0,0000360	8,5356	0,000
Repeatability	40	0,0001689	0,0000042		
Total	49	0,0126633			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000536	16,18
Repeatability	0,0000042	1,28
Reproducibility	0,0000493	14,91
operátor	0,0000430	12,98
operátor*díl	0,0000064	1,92
Part-To-Part	0,0002774	83,82
Total Variation	0,0003309	100,00

Process tolerance = 0,075

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0073180	0,043908	40,23	58,54
Repeatability	0,0020550	0,012330	11,30	16,44
Reproducibility	0,0070236	0,042141	38,61	56,19
operátor	0,0065548	0,039329	36,03	52,44
operátor*díl	0,0025229	0,015137	13,87	20,18
Part-To-Part	0,0166552	0,099931	91,55	133,24
Total Variation	0,0181920	0,109152	100,00	145,54

Number of Distinct Categories = 3

Gage R&R for char 12

Gage R&R Study - ANOVA Method

Gage R&R for char 13

Gage name: vhodnost MP dle MSA - char13
Date of study:
Reported by: Malcekova
Tolerance: 0,2
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0012244	0,0003061	0,9076	0,536
operátor	1	0,0003765	0,0003765	1,1163	0,350
díl * operátor	4	0,0013491	0,0003373	16,4024	0,000
Repeatability	40	0,0008225	0,0000206		
Total	49	0,0037724			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000855	100,00
Repeatability	0,0000206	24,06
Reproducibility	0,0000649	75,94
operátor	0,0000016	1,83
operátor*díl	0,0000633	74,11
Part-To-Part	0,0000000	0,00
Total Variation	0,0000855	100,00

Process tolerance = 0,2

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0092451	0,0554708	100,00	27,74
Repeatability	0,0045346	0,0272074	49,05	13,60
Reproducibility	0,0080567	0,0483401	87,15	24,17
operátor	0,0012523	0,0075141	13,55	3,76
operátor*díl	0,0079588	0,0477525	86,09	23,88
Part-To-Part	0,0000000	0,0000000	0,00	0,00
Total Variation	0,0092451	0,0554708	100,00	27,74

Number of Distinct Categories = 1

Gage R&R for char 13

Gage R&R Study - ANOVA Method

Gage R&R for char 14

Gage name: vhodnost MP dle MSA - char14
Date of study:
Reported by: Malcekova
Tolerance: 0,04
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0011547	0,0002887	121,050	0,000
operátor	1	0,0000003	0,0000003	0,105	0,762
díl * operátor	4	0,0000095	0,0000024	28,800	0,000
Repeatability	40	0,0000033	0,0000001		
Total	49	0,0011678			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000005	1,86
Repeatability	0,0000001	0,28
Reproducibility	0,0000005	1,58
operátor	0,0000000	0,00
operátor*díl	0,0000005	1,58
Part-To-Part	0,0000286	98,14
Total Variation	0,0000292	100,00

Process tolerance = 0,04

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0007370	0,0044221	13,65	11,06
Repeatability	0,0002878	0,0017265	5,33	4,32
Reproducibility	0,0006785	0,0040712	12,56	10,18
operátor	0,0000000	0,0000000	0,00	0,00
operátor*díl	0,0006785	0,0040712	12,56	10,18
Part-To-Part	0,0053507	0,0321040	99,06	80,26
Total Variation	0,0054012	0,0324071	100,00	81,02

Number of Distinct Categories = 10

Gage R&R for char 14

Gage R&R Study - ANOVA Method

Gage R&R for char 15

Gage name: vhodnost MP dle MSA - char15
Date of study:
Reported by: Malcekova
Tolerance: 0,04
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0002887	0,0000722	121,045	0,000
operátor	1	0,0000001	0,0000001	0,105	0,762
díl * operátor	4	0,0000024	0,0000006	28,803	0,000
Repeatability	40	0,0000008	0,0000000		
Total	49	0,0002920			

Alpha to remove interaction term = 0,05

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	1,86
Repeatability	0,0000000	0,28
Reproducibility	0,0000001	1,58
operátor	0,0000000	0,00
operátor*díl	0,0000001	1,58
Part-To-Part	0,0000072	98,14
Total Variation	0,0000073	100,00

Process tolerance = 0,04

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0003685	0,0022111	13,65	5,53
Repeatability	0,0001439	0,0008632	5,33	2,16
Reproducibility	0,0003393	0,0020356	12,56	5,09
operátor	0,0000000	0,0000000	0,00	0,00
operátor*díl	0,0003393	0,0020356	12,56	5,09
Part-To-Part	0,0026753	0,0160520	99,06	40,13
Total Variation	0,0027006	0,0162036	100,00	40,51

Number of Distinct Categories = 10

Gage R&R for char 15

Gage R&R Study - ANOVA Method

Gage R&R for char 16

Gage name: vhodnost MP dle MSA - char16
Date of study:
Reported by: Malcekova
Tolerance: 0,02
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000238	0,0000060	73,5268	0,001
operátor	1	0,0000005	0,0000005	6,0079	0,070
díl * operátor	4	0,0000003	0,0000001	0,2740	0,893
Repeatability	40	0,0000118	0,0000003		
Total	49	0,0000365			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000238	0,0000060	21,5690	0,000
operátor	1	0,0000005	0,0000005	1,7624	0,191
Repeatability	44	0,0000122	0,0000003		
Total	49	0,0000365			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000003	33,38
Repeatability	0,0000003	32,39
Reproducibility	0,0000000	0,99
operátor	0,0000000	0,99
Part-To-Part	0,0000006	66,62
Total Variation	0,0000009	100,00

Process tolerance = 0,02

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0005335	0,0032008	57,77	16,00
Repeatability	0,0005255	0,0031531	56,91	15,77
Reproducibility	0,0000918	0,0005506	9,94	2,75
operátor	0,0000918	0,0005506	9,94	2,75
Part-To-Part	0,0007537	0,0045221	81,62	22,61
Total Variation	0,0009234	0,0055403	100,00	27,70

Number of Distinct Categories = 1

Gage R&R for char 16

Gage R&R Study - ANOVA Method

Gage R&R for char 17

Gage name: vhodnost MP dle MSA - char17
Date of study:
Reported by: Malcekova
Tolerance: 0,01
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000076	0,0000019	13,9695	0,013
operátor	1	0,0000023	0,0000023	17,0998	0,014
díl * operátor	4	0,0000005	0,0000001	0,1976	0,938
Repeatability	40	0,0000274	0,0000007		
Total	49	0,0000378			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000076	0,0000019	2,97726	0,029
operátor	1	0,0000023	0,0000023	3,64440	0,063
Repeatability	44	0,0000279	0,0000006		
Total	49	0,0000378			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000007	84,83
Repeatability	0,0000006	76,72
Reproducibility	0,0000001	8,11
operátor	0,0000001	8,11
Part-To-Part	0,0000001	15,17
Total Variation	0,0000008	100,00

Process tolerance = 0,01

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0008373	0,0050241	92,10	50,24
Repeatability	0,0007963	0,0047777	87,59	47,78
Reproducibility	0,0002590	0,0015539	28,49	15,54
operátor	0,0002590	0,0015539	28,49	15,54
Part-To-Part	0,0003541	0,0021245	38,95	21,24
Total Variation	0,0009091	0,0054548	100,00	54,55

Number of Distinct Categories = 1

Gage R&R for char 17

Gage R&R Study - ANOVA Method

Gage R&R for char 18

Gage name: vhodnost MP dle MSA - char18
Date of study:
Reported by: Malcekova
Tolerance: 0,02
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000139	0,0000035	80,4399	0,000
operátor	1	0,0000000	0,0000000	0,0904	0,779
díl * operátor	4	0,0000002	0,0000000	0,5067	0,731
Repeatability	40	0,0000034	0,0000001		
Total	49	0,0000175			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000139	0,0000035	42,6738	0,000
operátor	1	0,0000000	0,0000000	0,0479	0,828
Repeatability	44	0,0000036	0,0000001		
Total	49	0,0000175			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	19,35
Repeatability	0,0000001	19,35
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000003	80,65
Total Variation	0,0000004	100,00

Process tolerance = 0,02

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0002858	0,0017148	43,99	8,57
Repeatability	0,0002858	0,0017148	43,99	8,57
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0005834	0,0035006	89,80	17,50
Total Variation	0,0006497	0,0038981	100,00	19,49

Number of Distinct Categories = 2

Gage R&R for char 18

Gage R&R Study - ANOVA Method

Gage R&R for char 19

Gage name: vhodnost MP dle MSA - char19
Date of study:
Reported by: Malcekova
Tolerance: 0,01
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000031	0,0000008	9,12675	0,027
operátor	1	0,0000000	0,0000000	0,18738	0,687
díl * operátor	4	0,0000003	0,0000001	0,71504	0,587
Repeatability	40	0,0000047	0,0000001		
Total	49	0,0000082			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000031	0,0000008	6,69954	0,000
operátor	1	0,0000000	0,0000000	0,13755	0,713
Repeatability	44	0,0000051	0,0000001		
Total	49	0,0000082			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000001	63,70
Repeatability	0,0000001	63,70
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000001	36,30
Total Variation	0,0000002	100,00

Process tolerance = 0,01

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0003395	0,0020367	79,81	20,37
Repeatability	0,0003395	0,0020367	79,81	20,37
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0002563	0,0015376	60,25	15,38
Total Variation	0,0004253	0,0025519	100,00	25,52

Number of Distinct Categories = 1

Gage R&R for char 19

Gage R&R Study - ANOVA Method

Gage R&R for char 20

Gage name: vhodnost MP dle MSA - char20
 Date of study:
 Reported by: Malcekova
 Tolerance: 0,004
 Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	19,9785	0,007
operátor	1	0,0000000	0,0000000	0,3398	0,591
díl * operátor	4	0,0000002	0,0000000	1,4348	0,240
Repeatability	40	0,0000014	0,0000000		
Total	49	0,0000056			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	27,5753	0,000
operátor	1	0,0000000	0,0000000	0,4690	0,497
Repeatability	44	0,0000016	0,0000000		
Total	49	0,0000056			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	27,34
Repeatability	0,0000000	27,34
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000001	72,66
Total Variation	0,0000001	100,00

Process tolerance = 0,004

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001897	0,0011383	52,29	28,46
Repeatability	0,0001897	0,0011383	52,29	28,46
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0003093	0,0018556	85,24	46,39
Total Variation	0,0003628	0,0021769	100,00	54,42

Number of Distinct Categories = 2

Gage R&R for char 20

Gage R&R Study - ANOVA Method

Gage R&R for char 21

Gage name: vhodnost MP dle MSA - char21
Date of study:
Reported by: Malcekova
Tolerance: 0,004
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	19,9806	0,007
operátor	1	0,0000000	0,0000000	0,3397	0,591
díl * operátor	4	0,0000002	0,0000000	1,4346	0,240
Repeatability	40	0,0000014	0,0000000		
Total	49	0,0000056			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	27,5749	0,000
operátor	1	0,0000000	0,0000000	0,4688	0,497
Repeatability	44	0,0000016	0,0000000		
Total	49	0,0000056			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	27,34
Repeatability	0,0000000	27,34
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000001	72,66
Total Variation	0,0000001	100,00

Process tolerance = 0,004

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001897	0,0011383	52,29	28,46
Repeatability	0,0001897	0,0011383	52,29	28,46
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0003093	0,0018556	85,24	46,39
Total Variation	0,0003628	0,0021769	100,00	54,42

Number of Distinct Categories = 2

Gage R&R for char 21

Gage R&R Study - ANOVA Method

Gage R&R for char 22

Gage name: vhodnost MP dle MSA - char22
Date of study:
Reported by: Malcekova
Tolerance: 0,004
Misc:

Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	19,9806	0,007
operátor	1	0,0000000	0,0000000	0,3397	0,591
díl * operátor	4	0,0000002	0,0000000	1,4346	0,240
Repeatability	40	0,0000014	0,0000000		
Total	49	0,0000056			

Alpha to remove interaction term = 0,05

Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
díl	4	0,0000040	0,0000010	27,5749	0,000
operátor	1	0,0000000	0,0000000	0,4688	0,497
Repeatability	44	0,0000016	0,0000000		
Total	49	0,0000056			

Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0,0000000	27,34
Repeatability	0,0000000	27,34
Reproducibility	0,0000000	0,00
operátor	0,0000000	0,00
Part-To-Part	0,0000001	72,66
Total Variation	0,0000001	100,00

Process tolerance = 0,004

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)	%Tolerance (SV/Toler)
Total Gage R&R	0,0001897	0,0011383	52,29	28,46
Repeatability	0,0001897	0,0011383	52,29	28,46
Reproducibility	0,0000000	0,0000000	0,00	0,00
operátor	0,0000000	0,0000000	0,00	0,00
Part-To-Part	0,0003093	0,0018556	85,24	46,39
Total Variation	0,0003628	0,0021769	100,00	54,42

Number of Distinct Categories = 2

Gage R&R for char 22