

Inspection Certificate



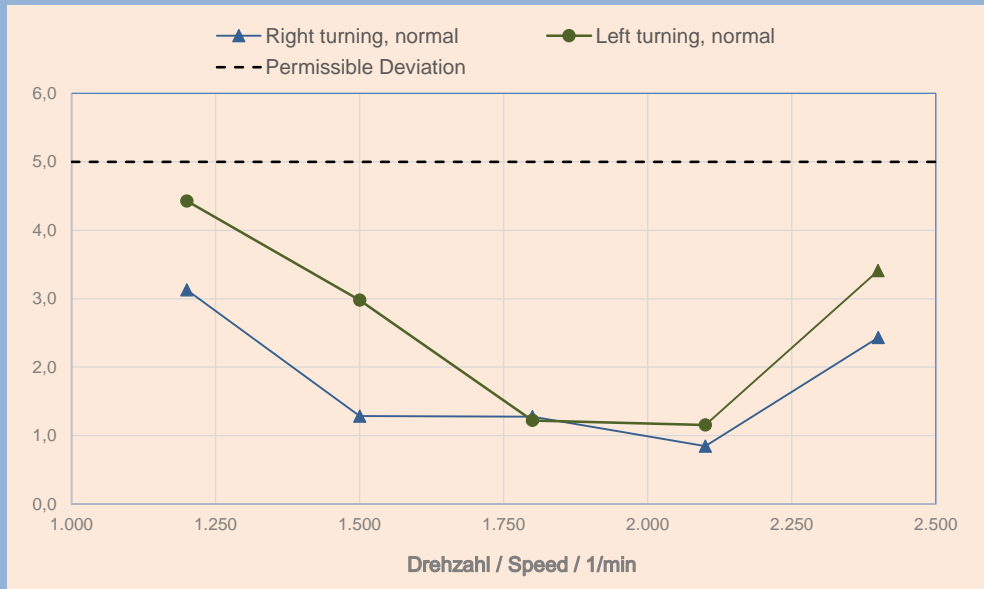
Test Certificate 3.1 acc. DIN EN 10204

Intelligent Balancing Solutions

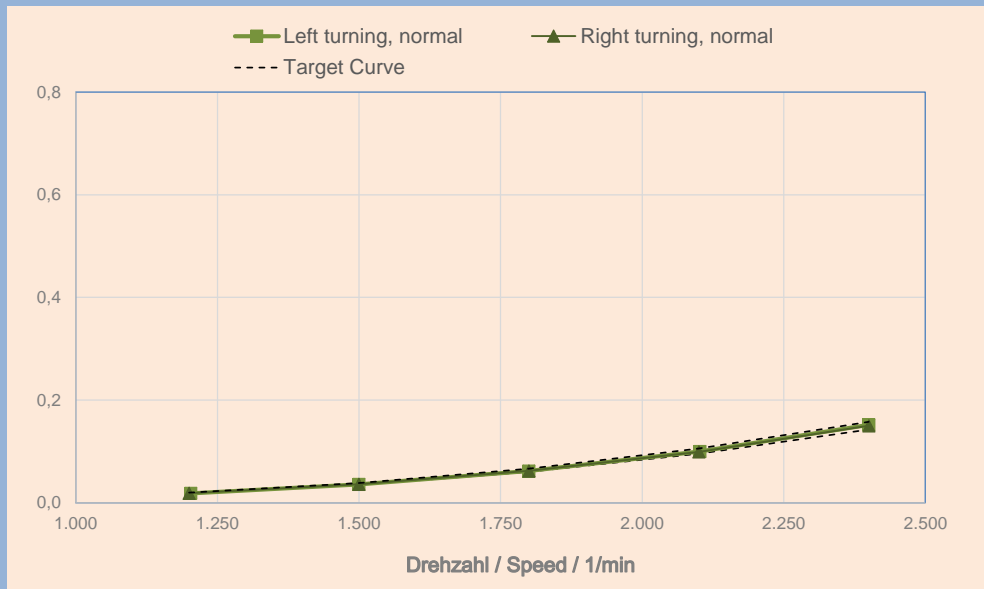
Customer	Neo-Tec		
Location	ul. Kobiałka 11a 09-411 Plock, Polen		
Order-No.	A13-030074		
Machine Type	HS 23		
Pedestal Type	HS 23		
Unbalance Measuring System	Quasar 2		
Test Performed by	Hofmann Mess- und Auswuchttechnik GmbH & Co. KG Werner-von-Siemens-Str. 21, D-64319 Pfungstadt		
Testing Device	Unbalance Shaker		
Testing Device No.	PH-003601		
Max. Unbalance	50.000,0		gmm
Test Unbalance	10.000,0		gmm
Angle	0,0		Grad
Perm. Deviation U, v	5,0		%
Stiffness Pedestal 1			
normal	750,0		N/μm
Stiffness Pedestal 2			
normal	750,0		N/μm
Testing Method	Setup certified Hofmann unbalance exciter into the bearing head. Connect speed sensor to measuring system of HS installation. Check unbalance and vibration calibration at different speeds within the operational range of the unbalance exciter. Permissible values and deviations are given by manufacturer.		
Comment	 		
Date of Test	11/2024	Next Recommended Test	11/2025
Test passed	yes		
Date	05.11.2024	Signature	Stamp
Inspector	i.A. Alborz Aghdaie		Hofmann Mess- und Auswuchttechnik GmbH & Co. KG Werner-von-Siemens-Str. 21 64319 Pfungstadt

Diagrams Pedestal 1

Test of low-speed Unbalance Measurement

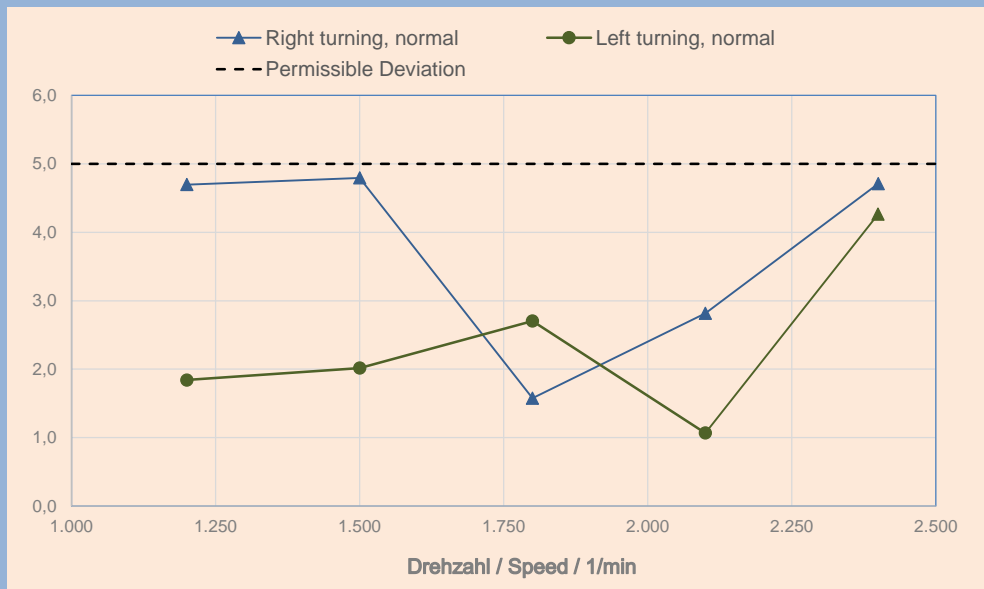


Test Vibration Velocity Measurement

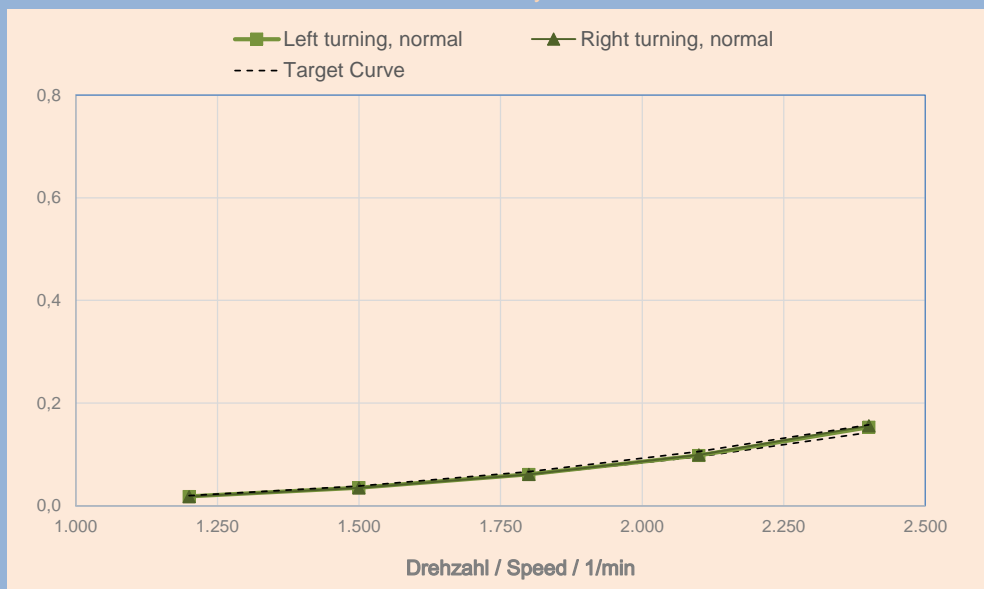


Diagrams Pedestal 2

Test of low-speed Unbalance Measurement



Test Vibration Velocity Measurement



Right turning, normal

Unbalance U and Vibration Velocity v-RMS by Unbalance Measuring System							
Meas. Values		Amount - Set Value		Deviation Amount			
Amount	Angle	Amount	Angle		Status		
Pedestal 1							
Speed 1/min	U gmm	W deg.	U gmm	W deg.	ΔU %	passed yes / no	Specification achieved yes / no
1.200,0	9.825,0	358,5	10.000,0	0,0	3,1	yes	yes
1.500,0	9.925,0	359,4	10.000,0	0,0	1,3	yes	
1.800,0	9.961,7	359,3	10.000,0	0,0	1,3	yes	
2.100,0	10.077,0	0,2	10.000,0	0,0	0,8	yes	
2.400,0	10.168,0	1,0	10.000,0	0,0	2,4	yes	
Speed 1/min	v-RMS mm/s	W deg.	v-RMS mm/s		Δv %	passed yes / no	Specification achieved yes / no
1.200,0	0,019	300,8	0,019		1,4	yes	yes
1.500,0	0,036	300,4	0,037		1,8	yes	
1.800,0	0,062	300,2	0,063		2,1	yes	
2.100,0	0,099	299,1	0,101		1,6	yes	
2.400,0	0,150	300,0	0,150		0,1	yes	

Pedestal 2							
Speed 1/min	U gmm	W deg.	U gmm	W Grad	ΔU %	passed yes / no	Specification achieved yes / no
1.200,0	9.722,0	357,8	10.000,0	0,0	4,7	yes	yes
1.500,0	9.552,0	359,0	10.000,0	0,0	4,8	yes	
1.800,0	9.986,0	0,9	10.000,0	0,0	1,6	yes	
2.100,0	10.032,0	1,6	10.000,0	0,0	2,8	yes	
2.400,0	10.454,0	0,7	10.000,0	0,0	4,7	yes	
Speed 1/min	v-RMS mm/s	W deg.	v-RMS mm/s		Δv %	passed yes / no	Specification achieved yes / no
1.200,0	0,018	64,0	0,019		4,6	yes	yes
1.500,0	0,035	65,8	0,037		4,8	yes	
1.800,0	0,061	66,0	0,063		3,7	yes	
2.100,0	0,099	65,0	0,101		1,6	yes	
2.400,0	0,156	66,3	0,150		3,9	yes	

Left turning, normal

Unbalance U and Vibration Velocity v-RMS by Unbalance Measuring System							
Meas. Values		Amount - Set Value		Deviation Amount			
Amount	Angle	Amount	Angle		Status		
Pedestal 1							
Speed 1/min	U gmm	W deg.	U gmm	W deg.	ΔU %	passed yes / no	Specification achieved yes / no
1.200,0	9.683,0	358,2	10.000,0	0,0	4,4	yes	yes
1.500,0	9.854,0	358,5	10.000,0	0,0	3,0	yes	
1.800,0	9.997,0	359,3	10.000,0	0,0	1,2	yes	
2.100,0	10.110,0	359,8	10.000,0	0,0	1,2	yes	
2.400,0	10.280,0	1,1	10.000,0	0,0	3,4	yes	
Speed 1/min	v-RMS mm/s	W deg.	v-RMS mm/s		Δv %	passed yes / no	Specification achieved yes / no
1.203,0	0,018	86,6	0,019		2,7	yes	yes
1.500,0	0,036	87,5	0,037		1,8	yes	
1.800,0	0,062	88,9	0,063		2,1	yes	
2.102,0	0,100	88,6	0,101		0,8	yes	
2.400,0	0,152	90,0	0,150		1,3	yes	

Pedestal 2							
Speed 1/min	U gmm	W deg.	U gmm	W Grad	ΔU %	passed yes / no	Specification achieved yes / no
1.200,0	9.879,0	0,8	10.000,0	0,0	1,8	yes	yes
1.500,0	9.799,0	359,9	10.000,0	0,0	2,0	yes	
1.800,0	9.827,0	1,2	10.000,0	0,0	2,7	yes	
2.100,0	9.938,0	0,5	10.000,0	0,0	1,1	yes	
2.400,0	10.413,0	0,6	10.000,0	0,0	4,3	yes	
Speed 1/min	v-RMS mm/s	W deg.	v-RMS mm/s		Δv %	passed yes / no	Specification achieved yes / no
1.200,0	0,018	89,9	0,019		2,5	yes	yes
1.500,0	0,035	89,5	0,037		3,4	yes	
1.800,0	0,061	88,9	0,063		3,7	yes	
2.100,0	0,098	88,7	0,101		2,6	yes	
2.400,0	0,153	88,5	0,150		1,9	yes	