

## Technical data

# Formline F435/F455 and Roundscan

Model	F435	F455	Roundscan 535	Roundscan 555	Roundscan 590
<b>Measuring range</b>					
Distance C/Z axis, max. interfering edge radius	325 mm	325 mm	370 (320/420 <sup>1)</sup> ) mm	370 (320/420 <sup>1)</sup> ) mm	370 (320/420 <sup>1)</sup> ) mm
Max. test diameter	430 mm	430 mm	430 (330/530 <sup>1)</sup> ) mm	430 (330/530 <sup>1)</sup> ) mm	430 (330/530 <sup>1)</sup> ) mm
Max. measuring height	350 mm	550 mm	350 mm	550 mm	900 mm
<b>Rotation axis (C axis)</b>					
Table diameter	250 mm		330 mm		
Workpiece alignment	automatic		automatic		
Roundness deviation (radial) $\mu\text{m}+\mu\text{m}/\text{mm}$ measuring height	0.02+0.0005 $\mu\text{m}$		0.02+0.0005 $\mu\text{m}$		
Roundness deviation (radial) $\mu\text{m}+\mu\text{m}/\text{mm}$ measuring height <sup>2)</sup>	0.01+0.00025 $\mu\text{m}$		0.01+0.00025 $\mu\text{m}$		
Flatness deviation (axial) $\mu\text{m}+\mu\text{m}/\text{mm}$ radius	0.03+0.0005 $\mu\text{m}$		0.03+0.0005 $\mu\text{m}$		
Flatness deviation (axial) $\mu\text{m}+\mu\text{m}/\text{mm}$ radius <sup>2)</sup>	0.015+0.00025 $\mu\text{m}$		0.015+0.00025 $\mu\text{m}$		
Centering range	$\pm 2$ mm		$\pm 5$ mm		
Leveling range	$\pm 0.6^\circ$		$\pm 1^\circ$		
Measuring and positioning speed	1 – 12 1/min.		0.2 – 15 1/min.		
Bearing	air		air		
Max. charge	400 N		600 (1000 <sup>1)</sup> )N		
<b>Vertical axis (Z axis)</b>					
Measuring distance	350 mm	550 mm	350 mm	550 mm	900 mm
Straightness deviation/100 mm	0.15 $\mu\text{m}$	0.15 $\mu\text{m}$	0.15 $\mu\text{m}$	0.15 $\mu\text{m}$	0.25 $\mu\text{m}$
Straightness deviation/measuring distance	0.3 $\mu\text{m}$	0.4 $\mu\text{m}$	0.3 $\mu\text{m}$	0.45 $\mu\text{m}$	1.5 $\mu\text{m}$
Parallel C-Z/measuring distance	0.8 $\mu\text{m}$	1.3 $\mu\text{m}$	0.5 $\mu\text{m}$	0.8 $\mu\text{m}$	2.5 $\mu\text{m}$
Measuring and positioning speed	0.2 – 23 mm/s	0.2 – 23 mm/s	0.2 – 50 mm/s	0.2 – 50 mm/s	0.2 – 50 mm/s
Collision protection	yes	yes	yes	yes	yes
<b>Horizontal axis (R axis)</b>					
Measuring distance	220 mm		220 mm		
Straightness deviation/100 mm	0.3 $\mu\text{m}$		0.25 $\mu\text{m}$		
Straightness deviation/measuring distance	0.6 $\mu\text{m}$		0.5 $\mu\text{m}$		
Squareness C-R	1.2 $\mu\text{m}$		0.8 $\mu\text{m}$		
Measuring and positioning speed	0.2 – 18 mm/s		0.2 – 50 mm/s		
<b>Dimensions</b>					
Length	790 (1010 <sup>3)</sup> ) mm	790 (1010 <sup>3)</sup> ) mm	1990 mm	1990 mm	1990 mm
Width	510 (650 <sup>4)</sup> ) mm	510 (650 <sup>4)</sup> ) mm	750 mm	750 mm	750 mm
Height	960 mm	1160 mm	1760 mm	1960 mm	2310 mm
<b>Weight</b>					
Measuring system	290 kg	300 kg	650 kg	665 kg	685 kg

<sup>1)</sup> On request.

<sup>2)</sup> Values as maximum deviation from the reference circle LSCI, filter 0 – 15 rpm LSC, 6 rpm.

<sup>3)</sup> R axis extended.

<sup>4)</sup> With servo box.