

Comparative Testing on HP

Comparative testing on KaVo and Star handpieces with ISC turbines, Myonic turbines and Barden turbines has been conducted

KGCH Ref # 09146		
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NSK Micro Precision Quality Assurance Dept		
		

【Items】

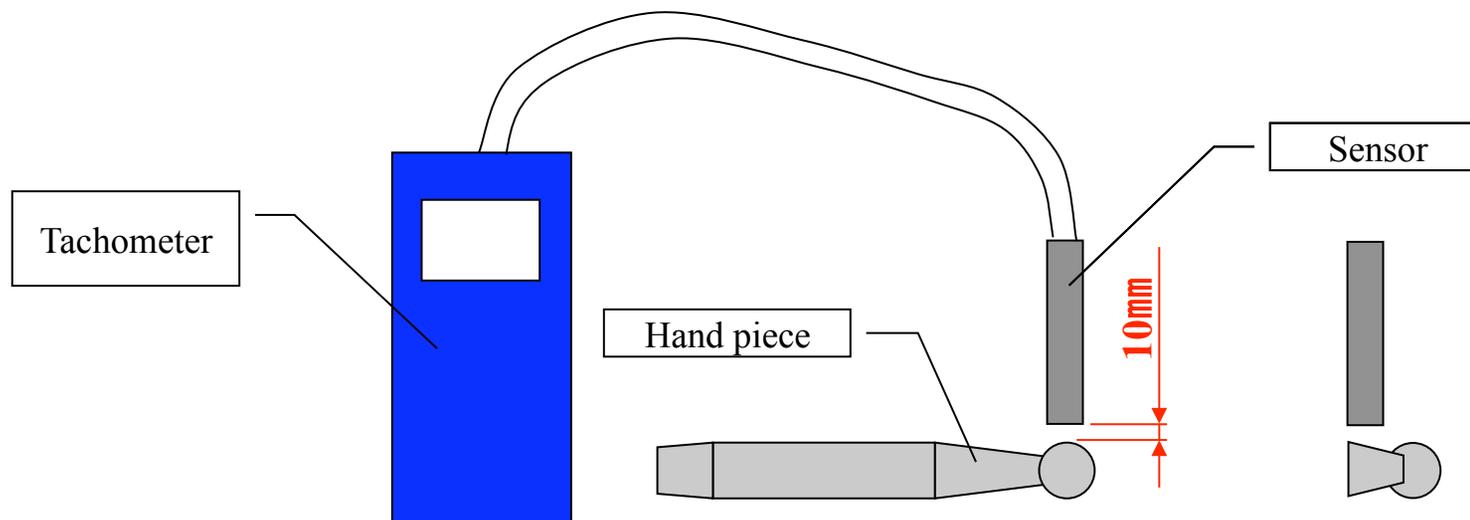
1) RPM 2) Noise 3) Torque

【Testing Devices/Procedures】

- RPM: Portable Tachometer HR-6800 (#1)
- Air Pressure: Pressure gauge of sent device
(Original pressure: 5kgf/cm² approx.)
- Noise : Noise gauge LA-1350 (#2)
- Torque: Jigs + Push-pull gauge + Stand (#3)

【Testing Result】

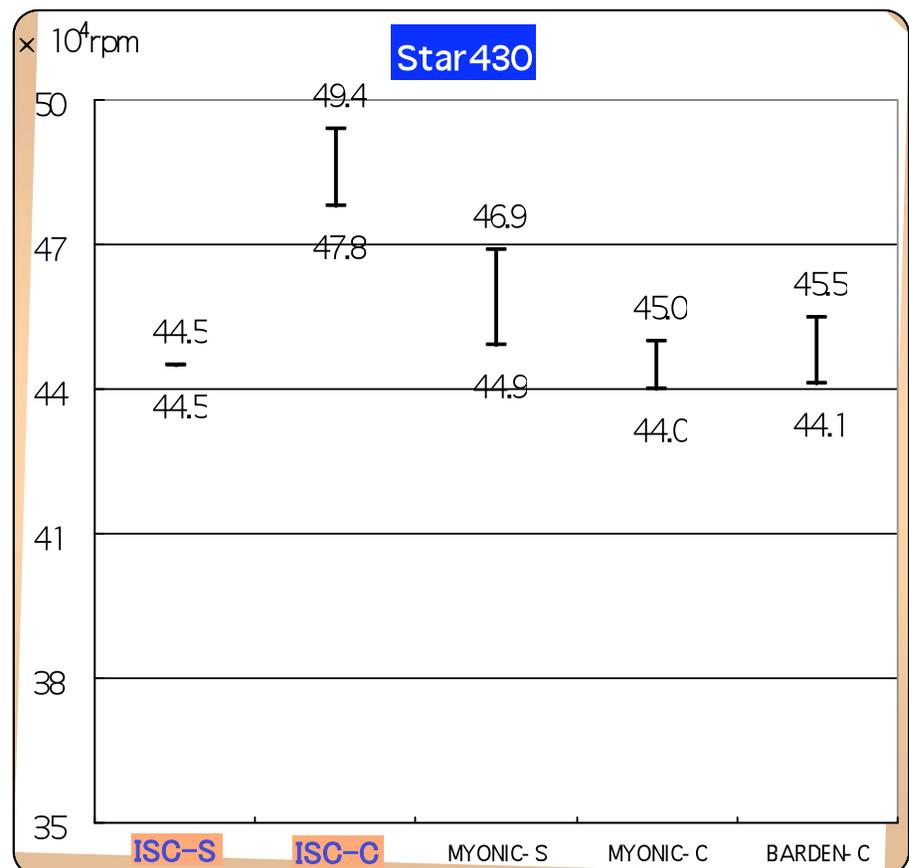
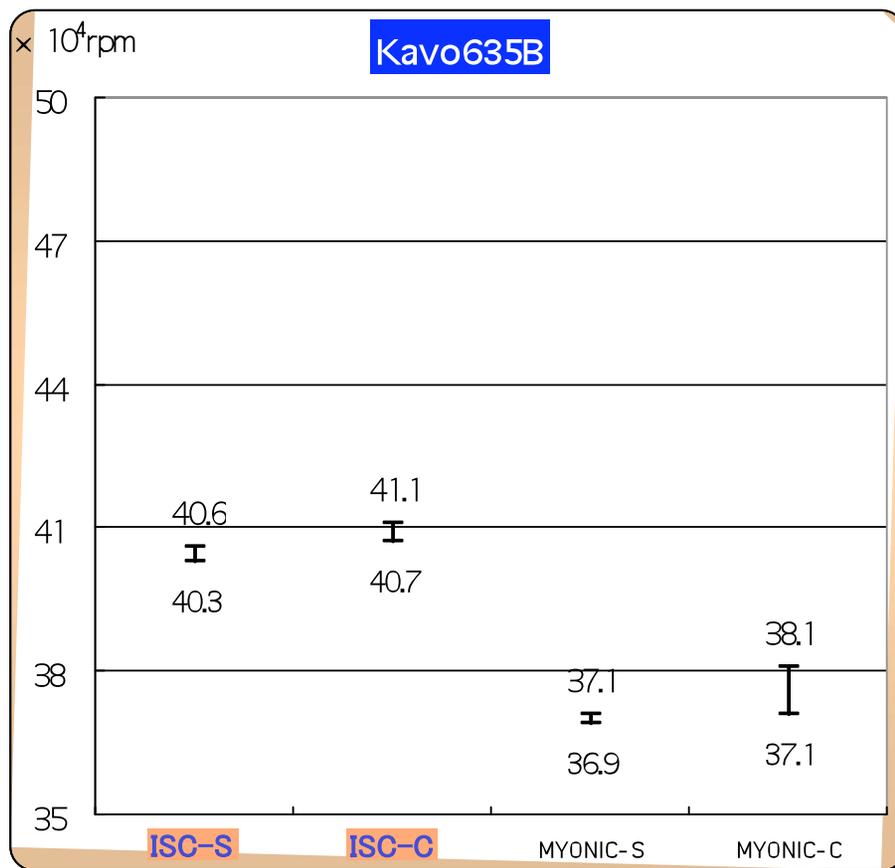
Please refer to P2~P9.

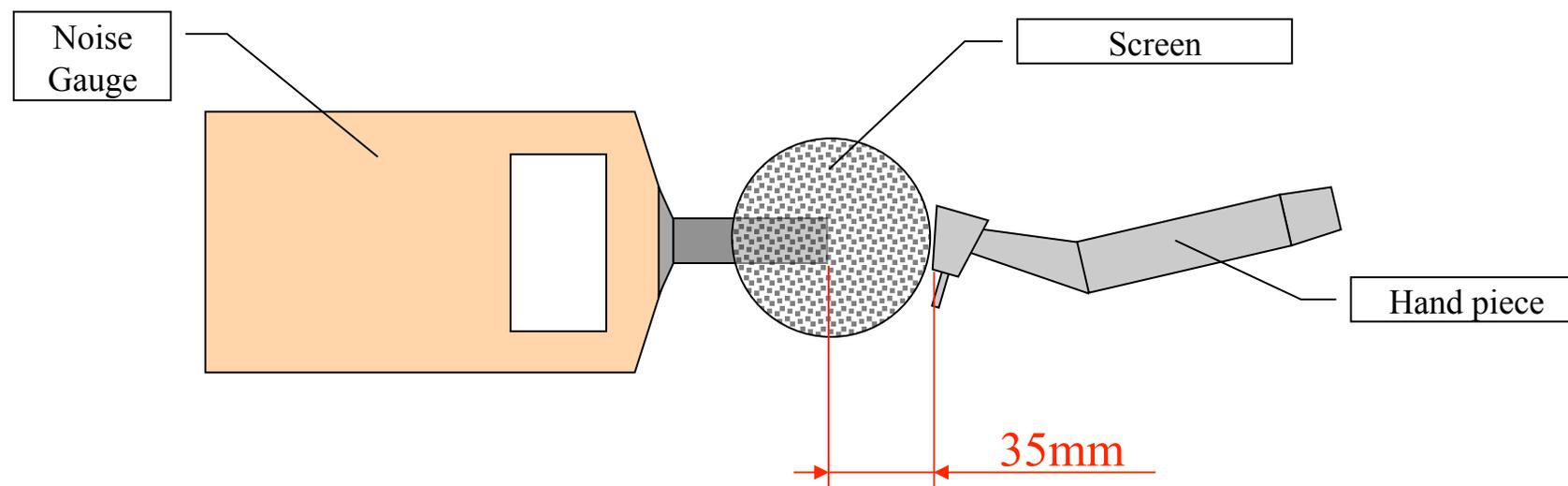


* RPM is measured on the magnetized HP head (Turbine installed)

#1. RPM Testing procedure/devices

Comparison - RPM

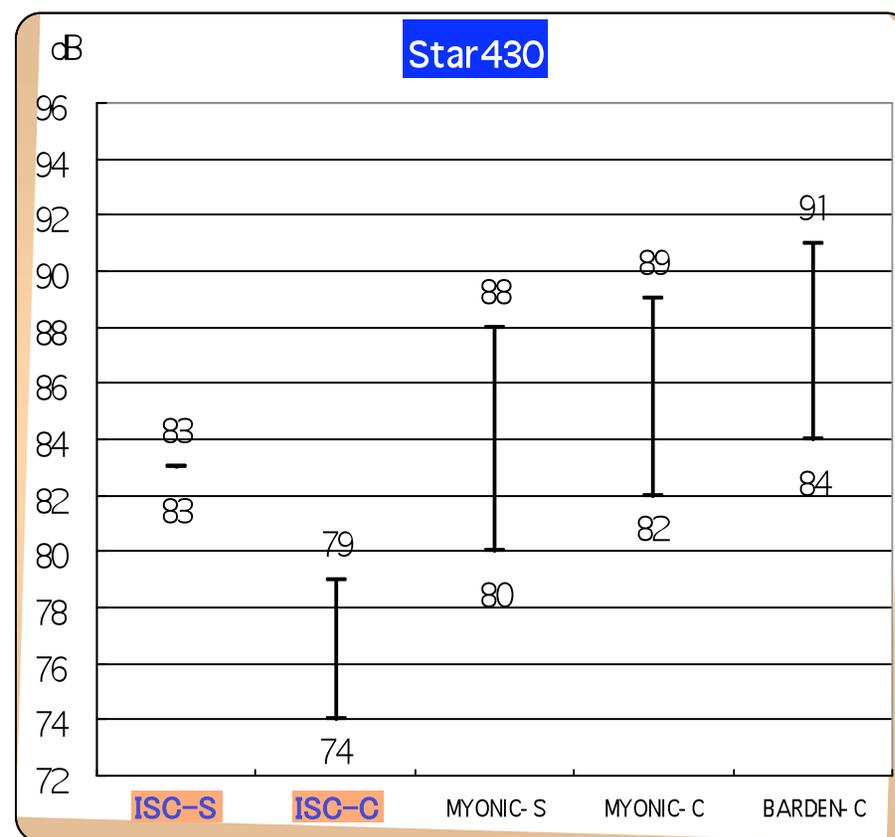
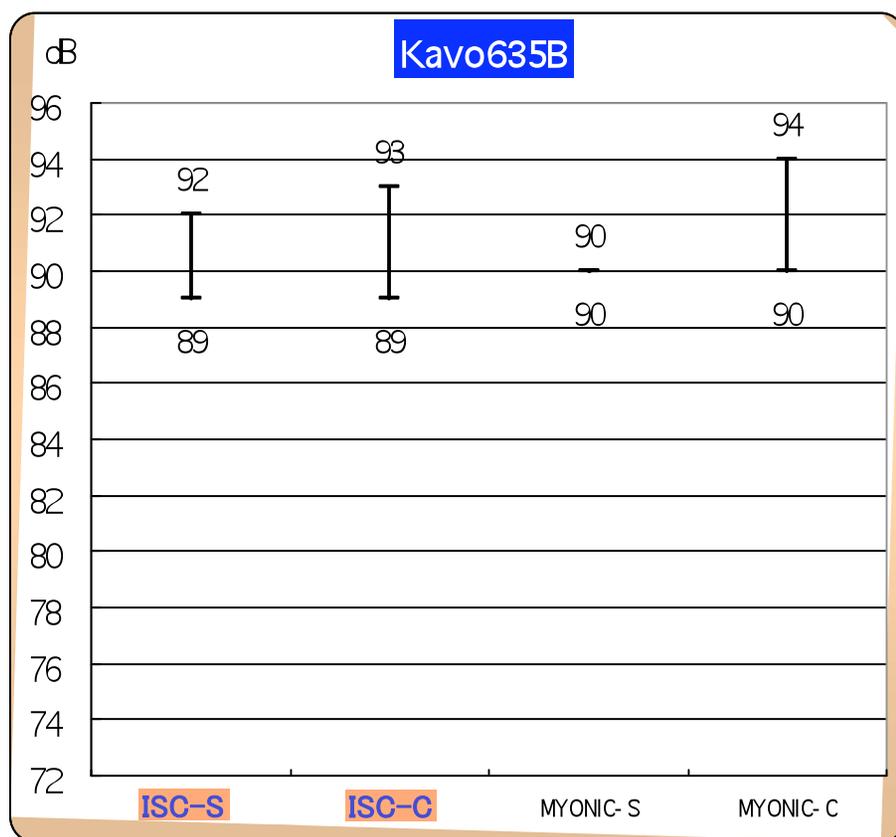




#2. Noise Testing procedure/devices

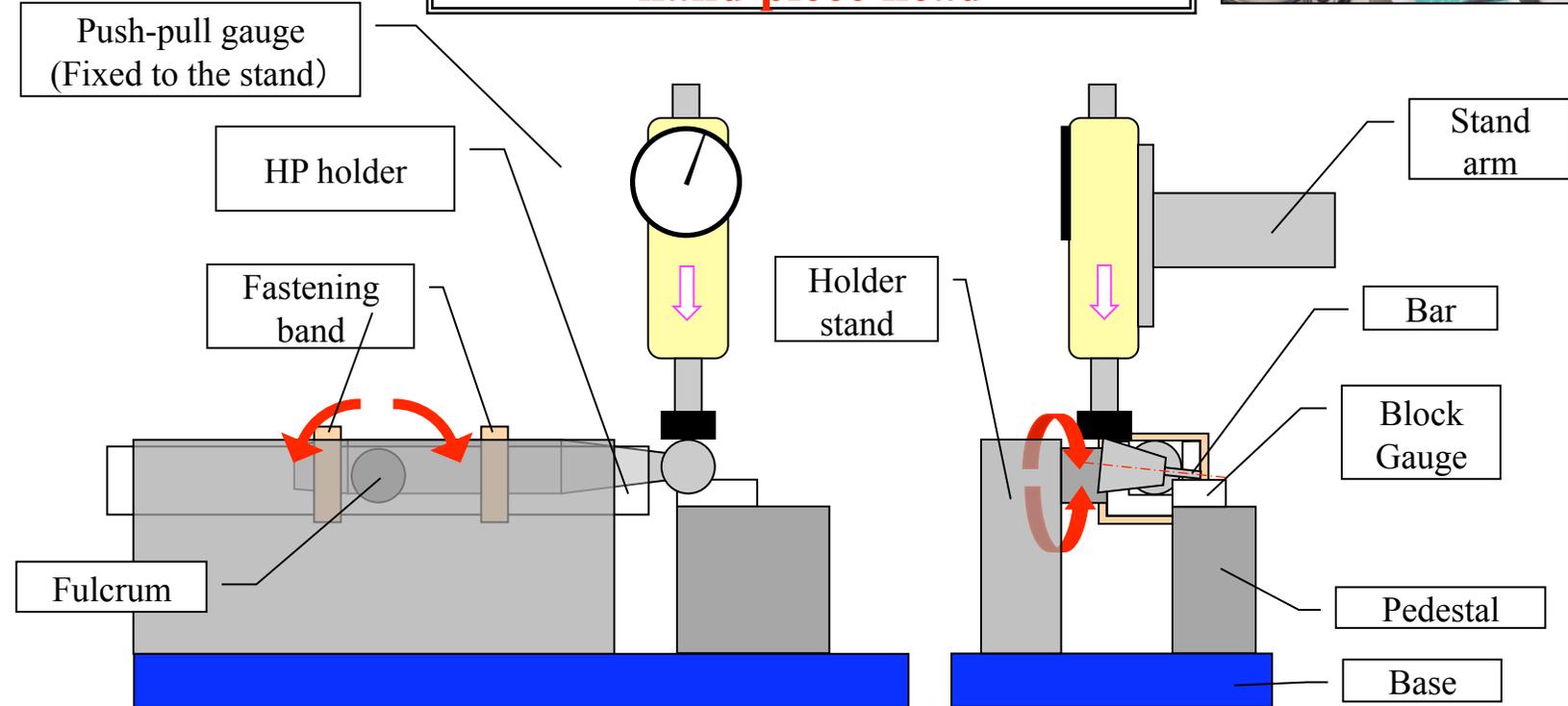
Comparison -Noise

【Noise data taken at 350,000rpm】



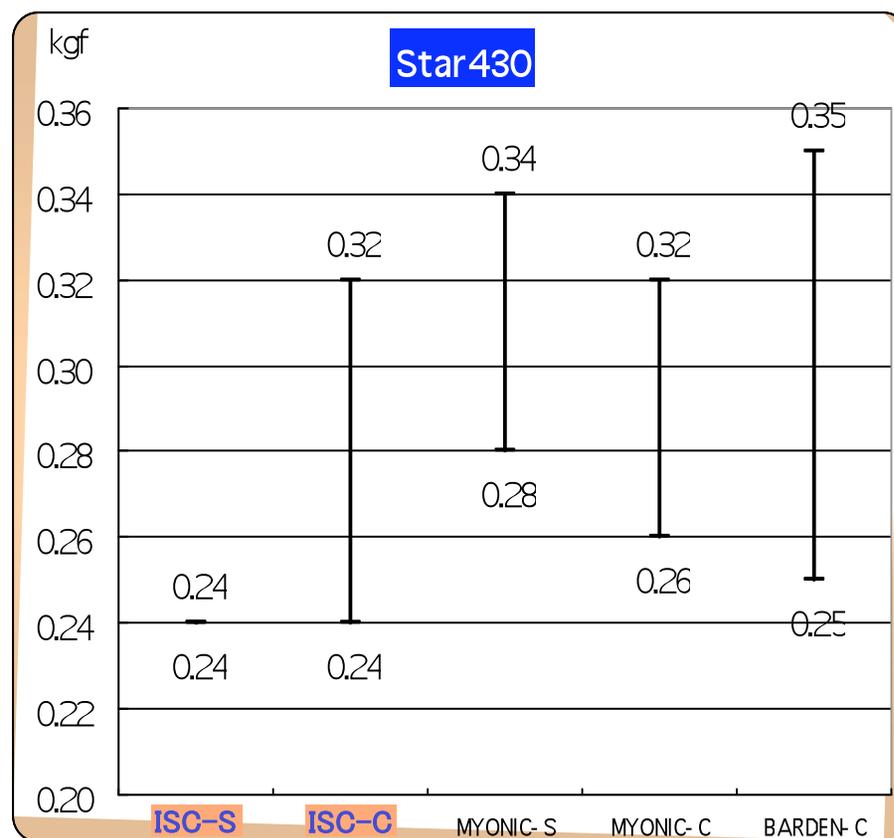
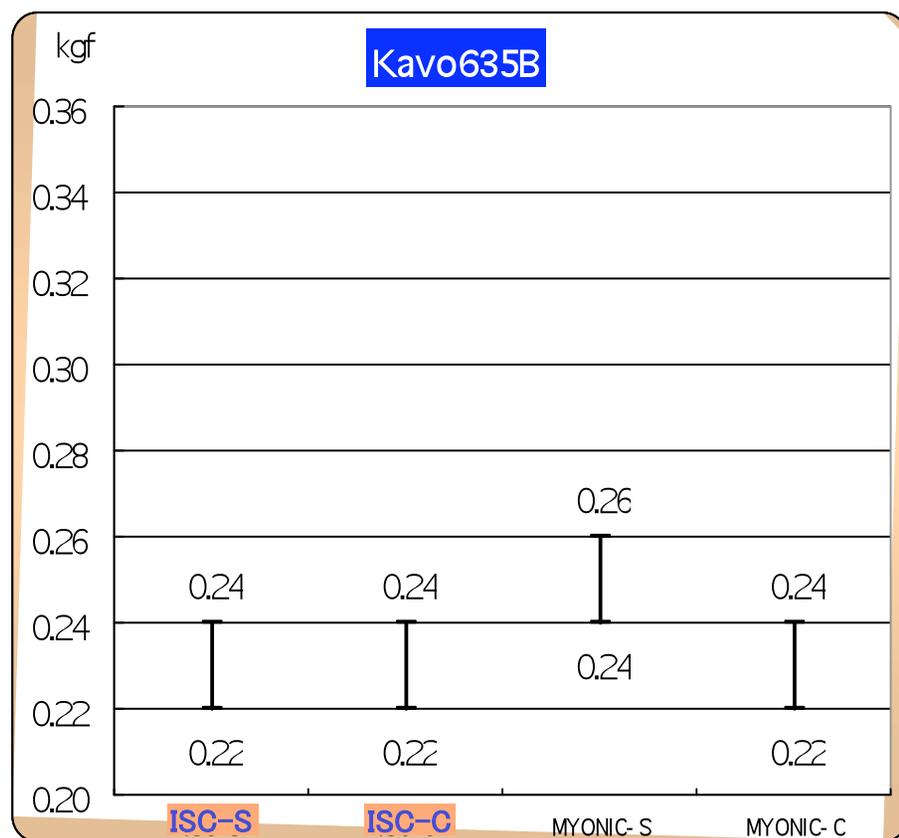


The moment load at the time of rotation stop is measured by pushing a push-pull gauge onto hand piece head



#3. Torque testing procedure/devices

Comparison - Torque



Item	Turbine #	RPM * ¹ (× 10 ⁴ rpm)	AP * ¹ (psi)	Noise* ² (dB)	Torque* ¹ (kgf)	Comment	
Star430	ISC-S	SIL50-0077	N/A				
		-0165	44.5	40	83	0.24	Lowest Torque
		-0124	N/A				
	ISC-C	-0069	49.4	39	79	0.24	Highest RPM Lowest Torque
		-0219	47.8	40	74	0.30	Lowest Noise
		-0006	49.3	41	77	0.32	
	MYONIC-S	2JE20-0055	45.3	41	88	0.28	
		-0035	46.9	41	80	0.34	
		-0051	44.9	40	83	0.32	
	MYONIC-C	-0097	45.0	39	86	0.28	
		-0091	44.2	39	82	0.26	
		-0098	44.0	41	89	0.32	Lowest RPM
BARDEN-C	2IL50-0198	44.1	42	84	0.35	Highest Torque	
	-0211	45.2	42	86	0.25		
	-0203	45.5	40	91	0.30	Highest Noise	
Kavo635B	ISC-S	2JC12-044	40.3	39	92	0.24	
		-070	40.6	39	89	0.22	Lowest Noise Lowest Torque
	ISC-C	-065	41.1	40	89	0.22	Highest RPM Lowest Noise Lowest TQ
		-042	40.7	40	93	0.24	
	MYONIC-S	-057	36.9	40	90	0.26	Lowest RPM
		-066	37.1	40	90	0.24	
	MYONIC-C	-092	38.1	40	94	0.22	Highest Noise
		-099	37.1	40	90	0.24	

* 1. Air pressure to sent device: 5kgf/cm² (71.1psi)

* 2. Noise data taken at 350,000 rpm

OVERVIEW

ISC Dental Turbine Bearings

Star430 : Ceramic version is rated
as the Highest RPM ▪ Lowest Noise
(Torque is rated average among three)

Kavo635B : Ceramic version is rated
as the Highest RPM ▪ Lowest Noise
(Torque is rated average among three)

*Comparison data proves that ISC dental ceramic bearings
perform the best quality among three*