

Pneumatic spindles



ES 450 ER

ES 350 ER

Technical data

Type (with ZG collet)		• ES 450 ZG	• ES 350 ZG	• ES 300 ZG
Order-No.		60012-12-7	60012-16-7	29924-54-7
Type (with ER collet)		• ES 450 ER	• ES 350 ER	—
Order-No.		60012-13-7	60012-15-7	—
Free speed	rpm	45 000	35 000	30 000
Motor power	Watt	230	300	270
Direction of rotation *		clockwise	clockwise	clockwise
Exhaust air **		to the rear	to the rear	to the rear
• ZG collet included	mm	6	6	6
• ZG collets available	mm "	3 4 5 1/4"	3 4 5 8 1/4"	3 4 5 1/4"
• ER collet included	mm	6	6	—
• ER collets available	mm	3 4 5	3 4 5	—
Carbide burrs	max. mm	8	10	10
Mounted points and wheels	max. mm	10	16	16
Noise level	dB(A)	78	79	70
Air consumption	l / sec	7.5	8.3	7.7
Weight	kg	0.39	0.42	0.38
Connection air supply (hose)	∅ mm, inside / outside	6 8	6 8	6 8

Power and free speed at 6 bar operating pressure. Compressed air quality: lubricated (2–3 drops per minute).

* Direction of rotation: *counterclockwise* on request | ** Exhaust air: with *guided exhaust air* upon request

- For installation in transfer lines, machine tools and robot stations
- Stainless steel housings
- Stainless steel spindles
- With collet chuck or precision collet chuck
- High true-running accuracy
- Paired bearings for longer tool life time and better running properties
- With splashguard to prevent penetration of dust, water or metal chips