



CC *e-motion*

MECHATRONIC POWER CHUCK

Wireless energy and signals
universal
Electric
Safe



www.smw-autoblok.com

www.smw-electronics.com



CC e-motion

INCH
SERRATION

Mechatronic power chuck

- Mechatronic single jaw drive
- Automatic correction function
- Centrifugal force compensation



Application/customer benefits

- Mechatronic single jaw drive
- Precise clamping force adjustment
- High-Low clamping possible
- Auto correction of the workpiece center
- Contact free transmission of power and signals via inductive coupler system
- e-sensing: inductive component detection / distance measurement (optional)

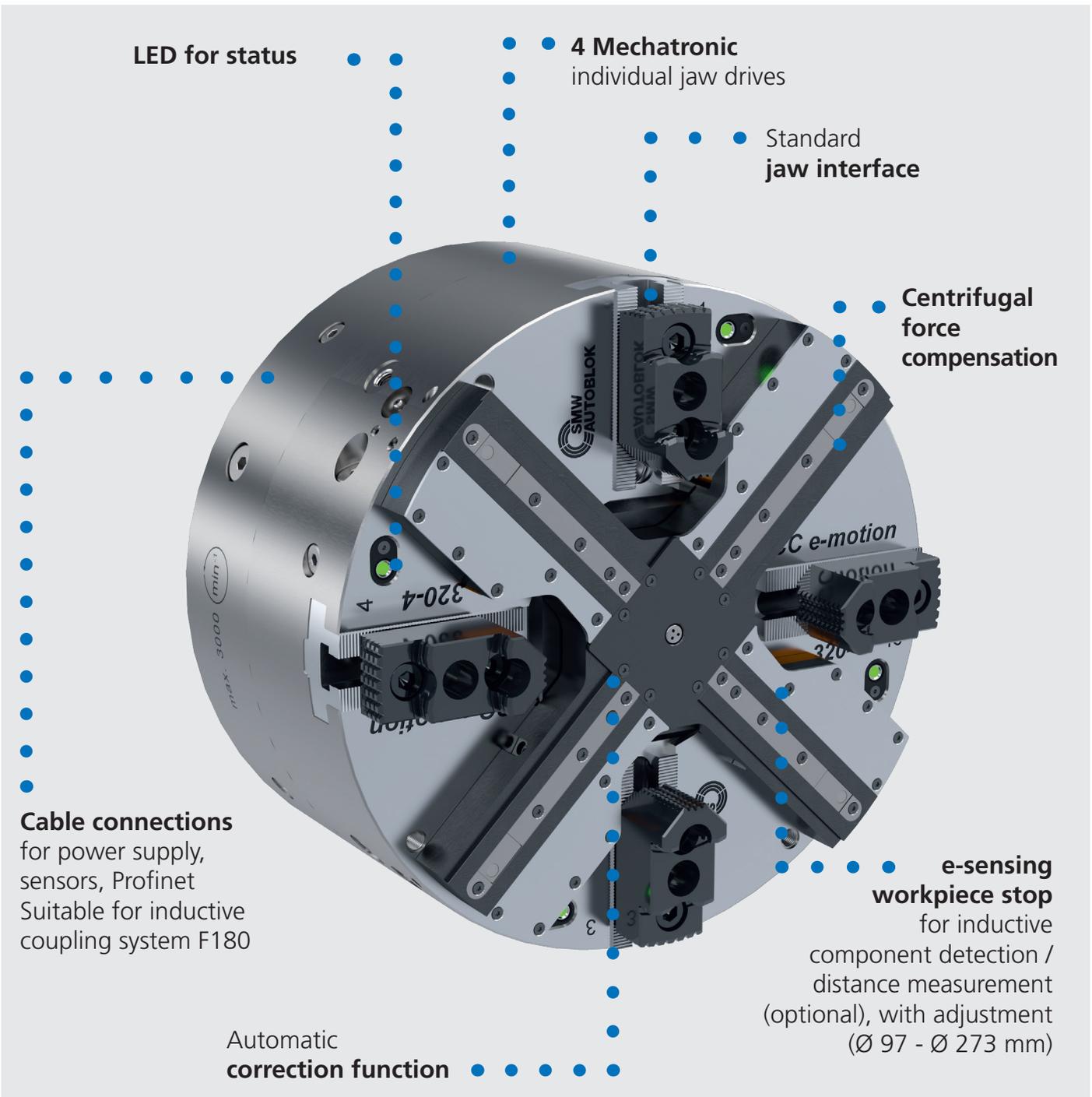
Technical features

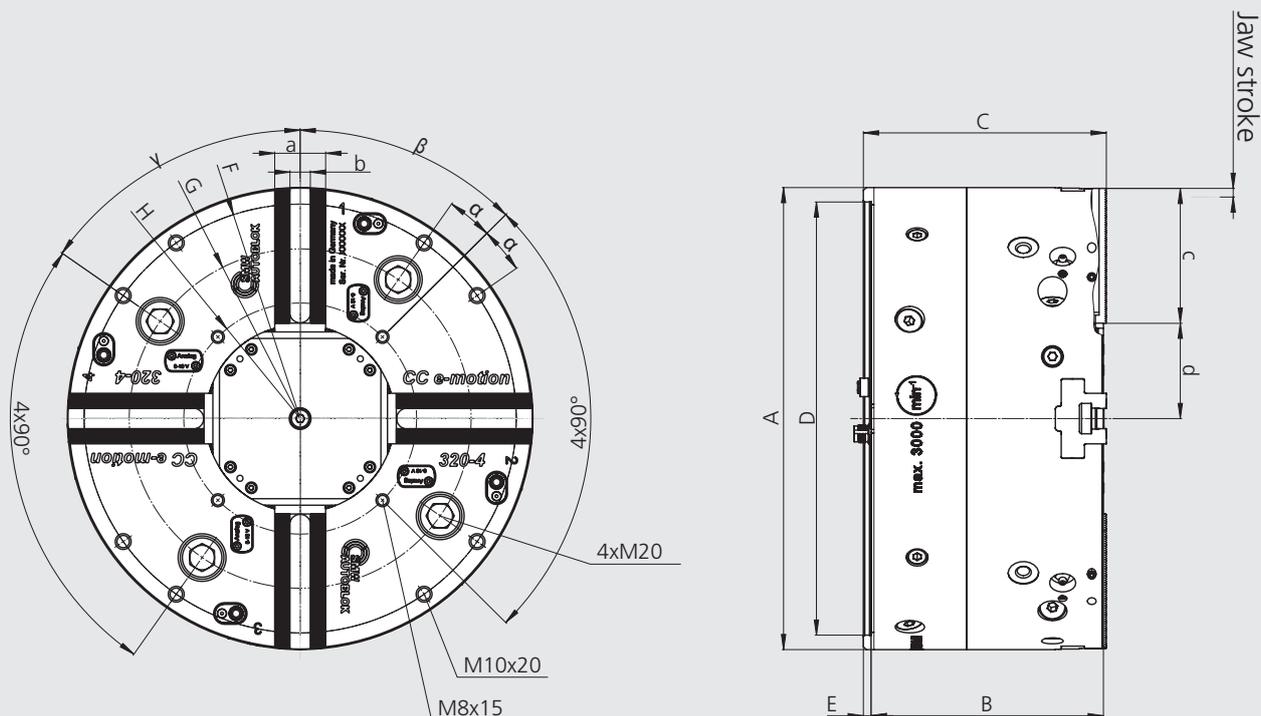
- Clamping force max. 100 kN
- Centrifugal force compensation
- Speed max. 3,000 rpm
- Clamping repeatability < 5 µm
- **proofline®** = fully sealed - low maintenance

Standard Equipment

4-jaw chuck
Mounting bolts

CC e-motion

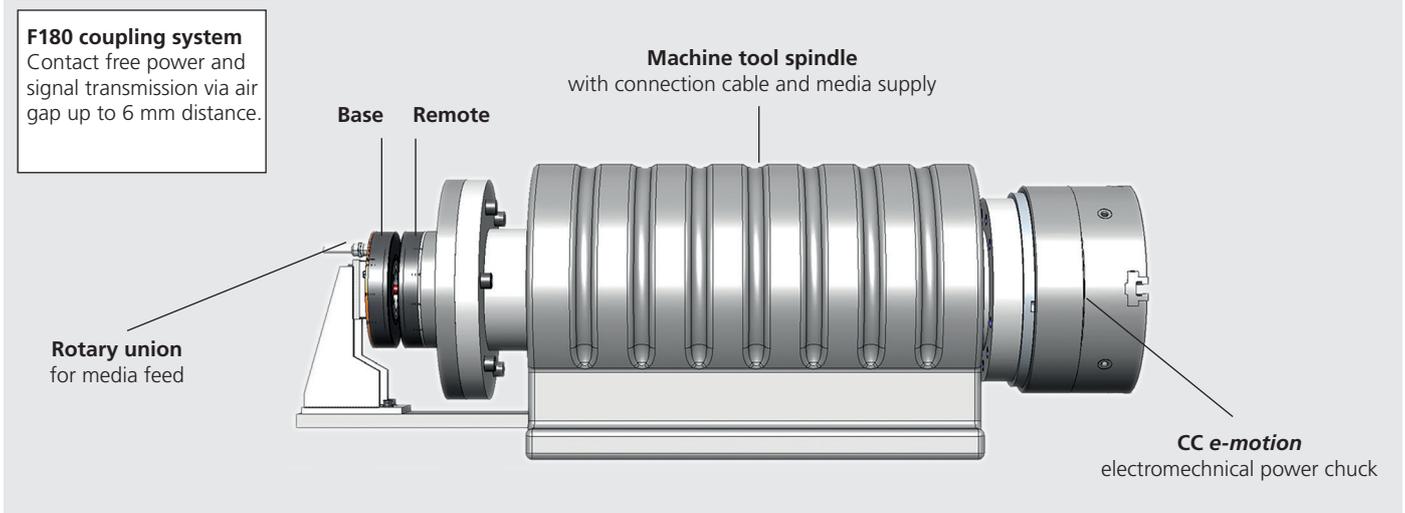




Subject to technical changes. For more detailed information please ask our customer service.

Type	CC e-motion 320-4		
Outside diameter	A	mm	Ø 320
	B	mm	159.7
	C	mm	167
	D	mm	Ø 300
	E	mm	5.3
Bolt circle	F	mm	Ø 297
Bolt circle	G	mm	Ø 235
Bolt circle	H	mm	Ø 160
Jaw position	a	mm	35
Slot width	b	mm	14
Min. / max.	c	mm	~ 93
	d	mm	~ 61.5 / ~ 66
	-	mm	-
	α	Degree	10
	β	Degree	45
	Y	Degree	55
Serration		Zoll	1/16" x 90°
Max. speed		min ⁻¹	3000
Max. total clamping force		kN	100
Stroke per jaw		mm	4,5
Compensation stroke per jaw		µm	< 5

Mechanical installation on the machine



Application examples: Clamping of different workpiece geometries

Clamping profile

- 4 jaws self centering
- 4 jaws self centering / compensating
- High / low grip force
- Automatic correction function

Round

Square

Rectangular

Irregular shaped

Easy deformed

Plug & Play

CC e-motion 320

+

Integrated control

+

F180 Ethernet Coupler
(Base/Remote)

+

PLC/ software module
Input mask

+

HMI
Operating screen

Technical data CC e-motion			Technical data F180 Ethernet		
Chuck diameter	mm	320	Power supply	V	24 / 48
Clamping force	kN	100	Transmission distance	mm	0 - 5
Max. speed	min ⁻¹	3000	Transmission standard		100 T-Base
Stroke per jaw	mm	4.5	Power transmission	V	24 / 48
Repeatability	µm	< 5	Power transmission	W	400

Notes

A series of horizontal stripes in alternating shades of blue and light blue, creating a template for notes. The stripes are uniform in width and extend across the entire width of the page.

F180 Ethernet

Inductive Coupling System

Axial coupler

■ Contact free transmission of energy and signals



Application/customer benefits

- Contact free transmission of energy and signals between moving / rotating and stationary components
- Application examples: Packaging machines, special machines, automation, machine tools, printing machines, robot applications (EOAT)
- Substitution of slip ring / connector
- Dynamic Pairing
- Wear and maintenance free
- Protective functions: Temperature monitoring, foreign object detection
- Status LED with good visibility

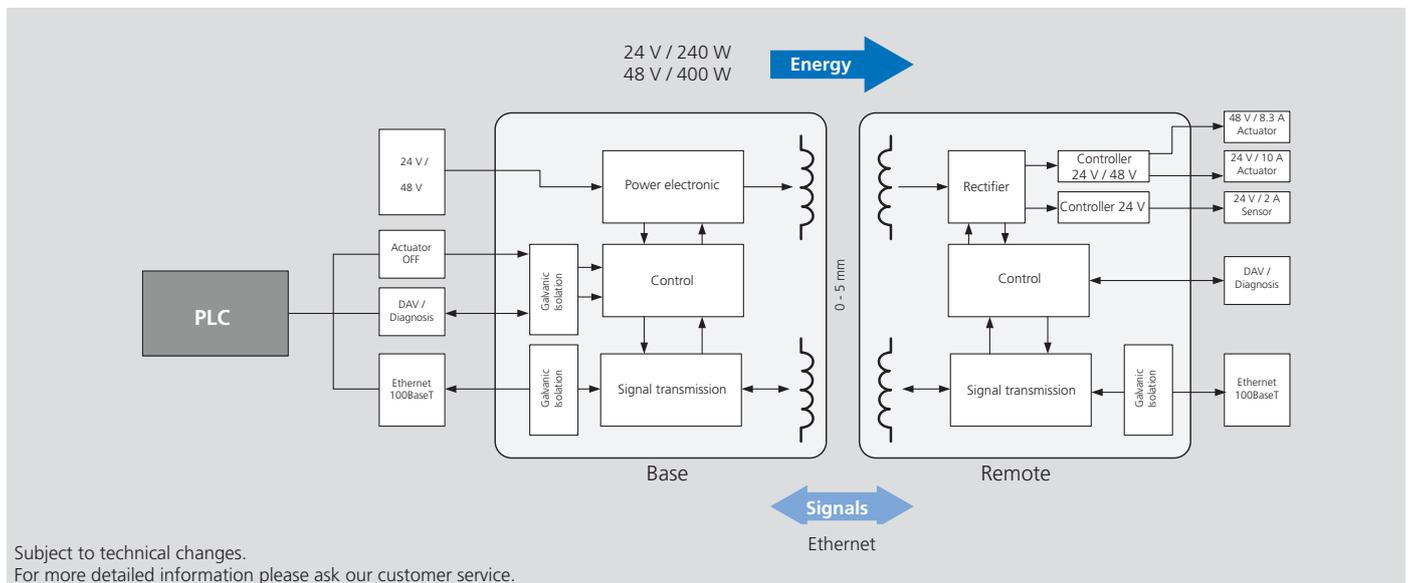
Technical features

- Diameter: 180 mm / Through hole: 85 mm
- Operating voltage: 24 V or 48 V
- Transmission distance: 0 - 5 mm at 24 V or 0 - 3 mm at 48 V
- Energy transmission: 24 V / 240 W or 48 V / 400 W (adjustable)
- Signal transmission: Ethernet 100 Base-T
- Transmission bandwidth < 5 MBit/s
- Connections: M12 Ethernet (D-coded), M12 Diagnosis (A-coded), terminal block (Energy)
- Protection class: IP67

Standard equipment

Inductive coupler base oder remote

Block diagram



Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

Type	Base	Remote
Id. No.	0E011246	0E011247
Operating temperature (body surface)	-20° C ... +60° C	
Stocking temperature	-20° C ... +60° C	
Transmission distance	0 mm ... 5 mm (24 V) 0 mm ... 3 mm (48 V)	
Operating voltage	24 V / 48 V	-
Output voltage (Actuator supply)*	-	24 V DC / 10 A 48 V DC / 8.3 A
Output voltage (Sensor supply)*	-	24 V DC / 4 A
Signal transmission	Ethernet 100 Base-T	
LED function display	3 LEDs 2-color	
Current consumption (base)	15 A (24 V) 12 A (48 V)	-
Overload protection / short-circuit protection	✓	✓
Reverse polarity protection	-	< 50 mV
Data valid output	max. 100 mA	-
Ready delay	< 5 s	

*max 400 W total

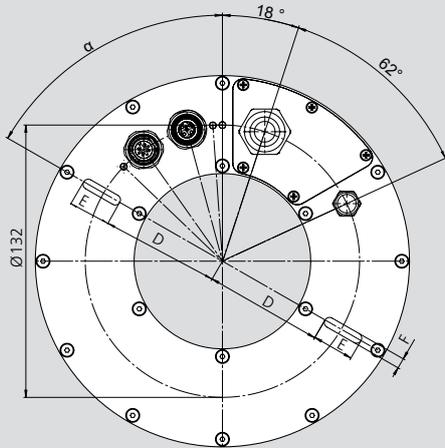
Inductive Coupling System

- Stationary Unit - Base
- Mobile Unit - Remote

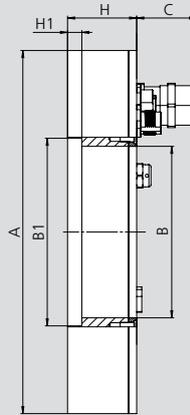
F180 Ethernet

Axial coupler

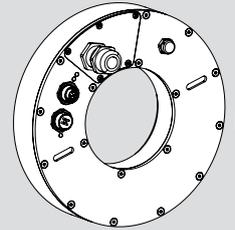
Base / Remote:



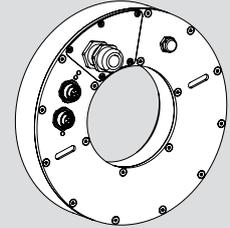
Base / Remote:



Base:



Remote:



Subject to technical changes.
For more detailed information please ask our customer service.

Inductive coupling system F180 Ethernet

Type	Base		Remote
Id. No.	0E011246		0E011247
A	mm	180	
B	mm	85	
B1	mm	93	
C	mm	29.5	
D	mm	57	
E	mm	20	
F	mm	5	
H	mm	34	
H1	mm	7	
α	degree	60	

Housing material	Al, GFK	
Protection class	IP67	
Weight	kg	1,275

Function Base		Function Remote	
LED Power		LED Actuator	
Color	Green/red	Color	Green/red
Function	Off » Unit not supplied with voltage (or undervoltage)	Function	Off » Unit not paired
	On (green) » Voltage ok and mobile unit has been detected		On (green) » Unit paired, voltage output actuator ok
	2 Hz green 50/ 50% » Operating temperature in critical range		Flashes 2 Hz red » Unit paired but short circuit on actuator
	1 Hz green 25/75% » Voltage ok but no mobile unit detected		Flashes 5 Hz red » Internal error
	1 Hz red/green » Incompatible mobile unit detected		
	2 Hz red » Foreign element detected		
5 Hz red » Internal error			
LED Signal transmission Ethernet		LED Sensor supply	
Color	Yellow/red	Color	Green/red
Function	Off » No mobile unit detected	Function	Off » Unit not paired
	On/yellow » Signal transmission ready		On (green) » Unit paired, voltage output sensor (24 V) ok
	1 Hz yellow » Data packets are being transmitted		Flashes 2 Hz red » Unit paired but short circuit on sensor (24 V)
	3 Hz yellow » 50% of the transmission bandwidth used (10 s)		Flashes 5 Hz red » Internal error
	8 Hz red » Data packets were discarded (in the last 10 s)		
	On/red » Error in data transmission (internal error)		
LED Energy transmission		LED Signal transmission	
Color	Yellow/red	Color	Yellow/red
Function	Off » No mobile unit detected	Function	Off » No mobile unit detected
	On (yellow) » Unit coupled, voltage output ok		On/yellow » Signal transmission ready
	1 Hz red/yellow » Short circuit at voltage output sensor		Flashes 1 Hz yellow » Data packets are being transmitted
	3 Hz red/yellow » Short circuit at voltage output actuator		Flashes 3 Hz yellow » 50% of the transmission bandwidth used (10 s)
	3 Hz red » Short circuit at both voltage outputs		Flashes 8 Hz red » Data packets were discarded (in the last 10 s)
	5 Hz red » Internal error		On/red » Error in data transmission (internal error)



Deutschland

SMW-AUTOBLOK Spannsysteme GmbH
Wiesentalstraße 28 • D-88074 Meckenbeuren

SMW-electronics GmbH
Wiesentalstraße 19 • D-88074 Meckenbeuren

Tel. +49 (0) 7542 - 405 - 0

Fax +49 (0) 7542 - 405 - 0

E-mail ► info@smw-autoblok.de

E-mail ► info@smw-electronics.de



Italien

AUTOBLOK s.p.a.
Via Duca D'Aosta n.24
Fraz. Novaretto
I-10040 Caprie - Torino

Tel. +39 011 - 9638411

Tel. +39 011 - 9632020

Fax +39 011 - 9632288

E-mail ► info@smwautoblok.it



U.S.A.

SMW-AUTOBLOK Corporation
285 Egidi Drive - Wheeling, IL 60090

Tel. +1 847 - 215 - 0591

Fax +1 847 - 215 - 0594

E-mail ► autoblok@smwautoblok.com



Frankreich

SMW-AUTOBLOK
17, Avenue des Frères Montgolfier - Z.I. Mi-Plaine
F-69680 Chassieu

Tel. +33 (0) 4.72.79.18.18, Fax +33 (0) 4.72.79.18.19

E-mail ► autoblok@smwautoblok.fr



Japan

SMW-AUTOBLOK Japan Inc.
1-56 Hira, Nishi-Ku, Nagoya

Tel. +81 (0) 52 - 504 - 0203

Fax +81 (0) 52 - 504 - 0205

E-mail ► infosaj@smwautoblok.co.jp



Großbritannien

SMW-AUTOBLOK Telbrook Ltd.
7 Wilford Industrial Estate, Ruddington Lane,
Wilford, GB-Nottingham, NG11 7EP

Tel. +44 (0) 115 - 982 1133

E-mail ► info@smw-autoblok-telbrook.co.uk



China

SMW-AUTOBLOK (Shanghai) Work Holding Co.,Ltd.
2dn Floor, Building 1, No.141, Xuanchung Road,
Xuanchung Town, Pudong District,
201399, Shanghai P. R. China

Tel. +86 21 - 5810 - 6396, Fax +86 21 - 5810 - 6395

E-mail ► china@smwautoblok.cn



Spanien

SMW-AUTOBLOK IBERICA, S.L.
Ursalto 4 – Pab. 9-10 Pol. 27,
20014 Donostia - San Sebastián (Gipuzkoa)

Tel.: +34 943 - 225 079, Fax: +34 943 - 225 074

E-mail ► info@smwautoblok.es



Mexiko

SMW-AUTOBLOK Mexico, S.A. de C.V.
Acceso III No. 16 Int. 9, Condominio Quadrum
Industrial Benito Juarez, Queretaro, Qro. C.P. 76120

Tel. +52 (442) 209 - 5118, Fax +52 (442) 209 - 5121

E-mail ► smwmex@smwautoblok.mx



Kanada

SMW AUTOBLOK CANADA CORP
1460 The Queensway - Suite 219
Etobicoke, ON M8Z 1S7

Tel. +1 416 - 316 - 3839

E-mail ► info@smwautoblok.ca



Indien

SMW-AUTOBLOK Workholding Pvt. Ltd.,
Plot No. 4, Weikfield Industrial Estate, Gat No. 125,
Sanaswadi, Tal - Shirur, Dist - Pune. 412 208

Tel. +91 2137 - 616 974

E-mail ► info@smwautoblok.in



Taiwan

AUTOBLOK Company Ltd.
No.6, Shuyi Rd., South Dist.,
Taichung, Taiwan

Tel. +886 4-226 10826, Fax +886 4-226 12109

E-mail ► taiwan@smwautoblok.tw



Türkei

SMW AUTOBLOK Makina San. Ve Tic. Ltd. Sti.
Yenisehir Mah, Osmanli Blv, Volume Kurtköy Ofis
No: 9, Kat: 2, D: 30, 34912, Pendik, Istanbul

Tel. +90 216 629 20 19

E-mail ► info@smwautoblok.com.tr



Tschechien / Slowakei

SMW-AUTOBLOK s.r.o.
Merhautova 20

CZ - 613 00 Brno

Tel. +420 513 034 157

E-mail ► info@smw-autoblok.cz



Schweden / Norwegen

SMW-AUTOBLOK Scandinavia AB
Kommendörsgatan 3

281 35 Hässleholm

Tel. +46 (0) 761 420 111

E-mail ► info@smw-autoblok.se



Polen

SMW-AUTOBLOK Poland Sp. z.o.o
OGRODNICZA 12

95 - 100 ZGIERZ

Tel. +48 736 059 699

E-mail ► info@smwautoblok.pl



Holland / Belgien

SMW Autoblok Benelux B.V.
Zeearend 7, 7609PT Almelo

Tel. +31 546 812 615

E-mail ► info@smwautoblok.nl



Korea

SMW-AUTOBLOK KOREA CO., LTD.
1502-ho, Charyong-ro 48beon-gil,

Uichang-gu, Changwon-si

Gyeongsangnam-do, 51391, Republic of Korea

Tel. +82 55 264 9505

E-mail ► info-korea@smw-autoblok.net