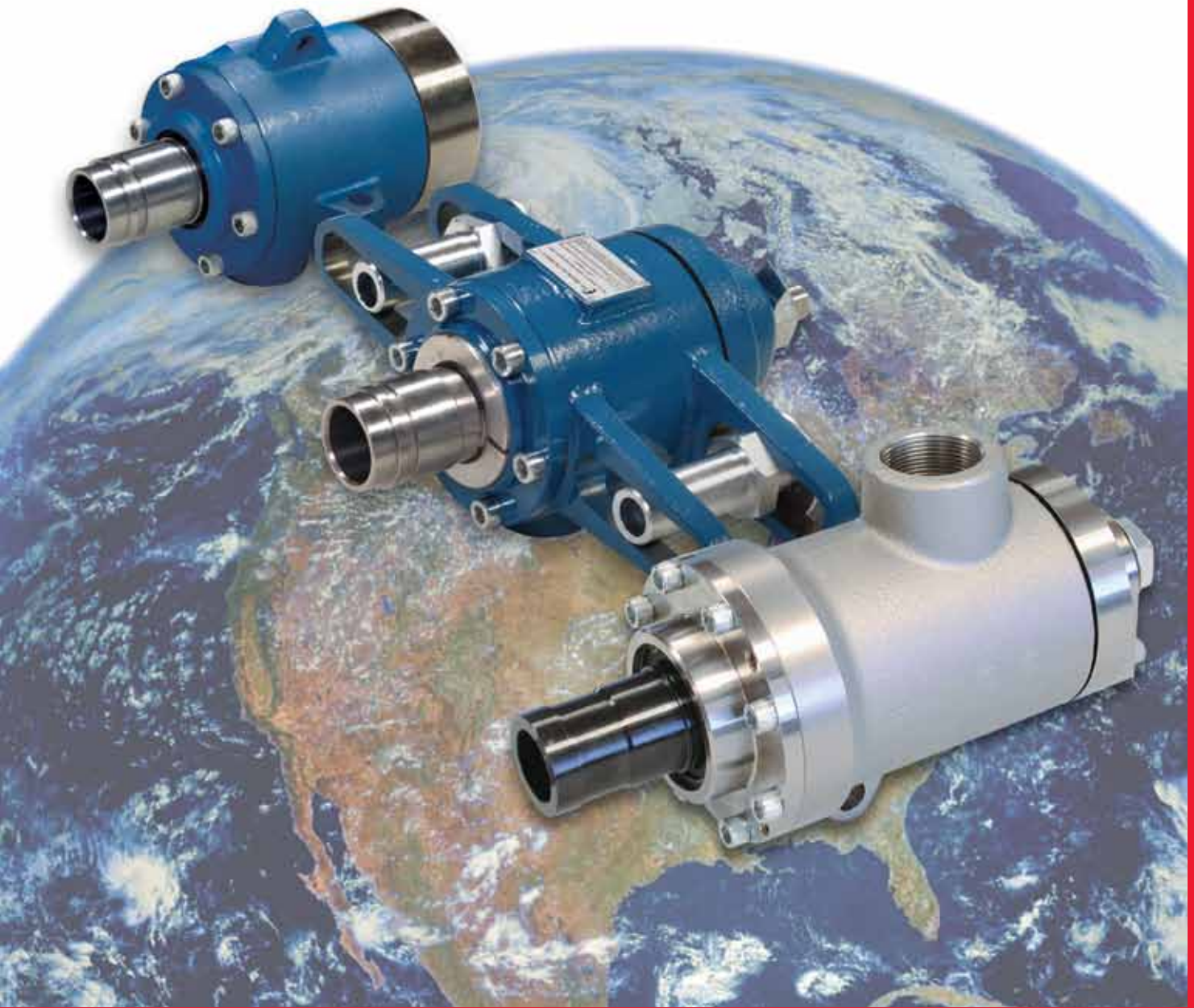


DEUBLIN[®]
Engineered for Performance

COR122 US



CORRUGATING SOLUTIONS

www.deublin.com

STEAM JOINT AND SIPHON SYSTEM FOR **ALL CORRUGATING APPLICATIONS**

To achieve maximum heat transfer to the surface of the roll, the condensate from inside the roll must be evacuated.

Corrugating machines use stationary or rotating siphons to evacuate condensate. A large majority of siphon systems used in corrugating operations employ stationary siphons.

Maintaining minimal clearance between the siphon and the surface of the roll and its orientation in the vertical, downward position requires a rigid siphon support system. This configuration is available in all *DEUBLIN* steam joint and stationary siphon systems.

Various stages of condensate behavior are shown below. As machine speeds increase, the condensate eventually transitions to a rimming condition. Maximum heat transfer is achieved by maintaining a minimum condensate layer thickness.

Key considerations for corrugating efficiency include siphon size, minimal and stable clearance between the siphon pipe and the roll, and maintaining the siphon in the vertical, downward position. Finally, the siphon system must withstand machine vibration without compromising the siphon clearance.

DEUBLIN meets the challenge of reducing the condensate layer inside the roll to a minimum with our innovative design feature that allows siphon clearance adjustment from outside the roll. The benefits of reduced siphon clearance are:

- *Reduced condensate layer inside the roll, which increases the temperature on the roll surface improving production*
- *Elimination of roll flooding – accelerates start up*
- *Increased product uniformity and quality with reduced scrap rates*

Condensate Behavior



STAGE 1
Puddle



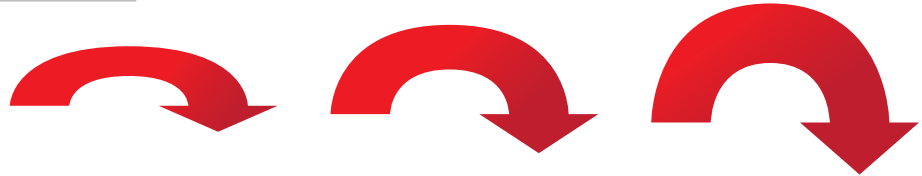
STAGE 2
Light Cascading



STAGE 3
Cascading



STAGE 4
Rimming





Operating Data

Maximum Saturated Steam Pressure	250 PSI	17 bar
Maximum Speed	400 RPM	400/min
Maximum Temperature	400°F	205°C

HPS A

Series for High Pressure Steam Service in Corrugators

- Duoflow design
- Self-supported rotating union
- Seals and bearings made of special Carbon Graphite
- Convex seal ring better suited to handle mechanical and thermal shock
- External mechanism to adjust siphon pipe through end cap
- Nickel-plated front and rear end cap
- Nickel-plated ductile iron housing
- Stainless steel spring
- Heavy duty steel rotor design
- Dual bearings for extended service life
- Siphon Type: Stationary
- Siphon Size: 1/2"



Operating Data

Maximum Saturated Steam Pressure	250 PSI	17 bar
Maximum Speed	400 RPM	400/min
Maximum Temperature	400°F	205°C

HPS B

Series for High Pressure Steam Service in Corrugators

- Duoflow design
- Self-supported
- Seals and bearings made of special Carbon Graphite
- Convex seal ring better suited to handle mechanical and thermal shock
- External mechanism to adjust siphon pipe through end cap
- Stainless steel spring
- Heavy duty steel rotor design
- Dual bearings for extended service life
- Siphon Type: Stationary or Rotating
- Siphon Size: 3/4" Stationary; 3/4" & 1" Rotating



Operating Data

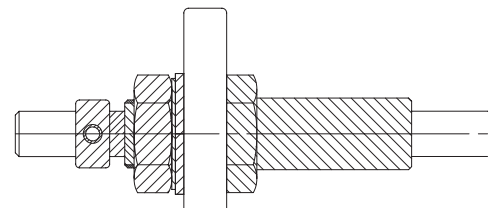
Maximum Saturated Steam Pressure	250 PSI	17 bar
Maximum Speed	400 RPM	400/min
Maximum Temperature	400°F	205°C

HPS C

Series for High Pressure Steam Service in Corrugators

- Duoflow design
- Rod Supported (by customer)
- Seals made of special Carbon Graphite
- Convex seal ring better suited to handle mechanical and thermal shock
- External mechanism to adjust siphon pipe through end cap
- Stainless steel spring
- Heavy duty steel rotor design
- Siphon Type: Stationary or Rotating
- Siphon Size: 3/4" Stationary; 3/4" & 1" Rotating

Rod Kit included with HPS C

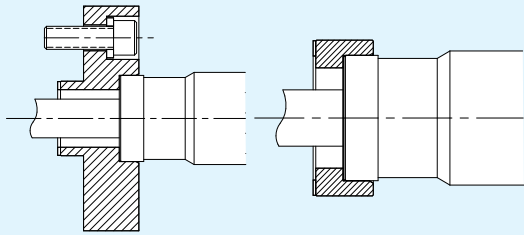


Mounting to DEUBLIN Supplied Rods

Flange Adapter Kits

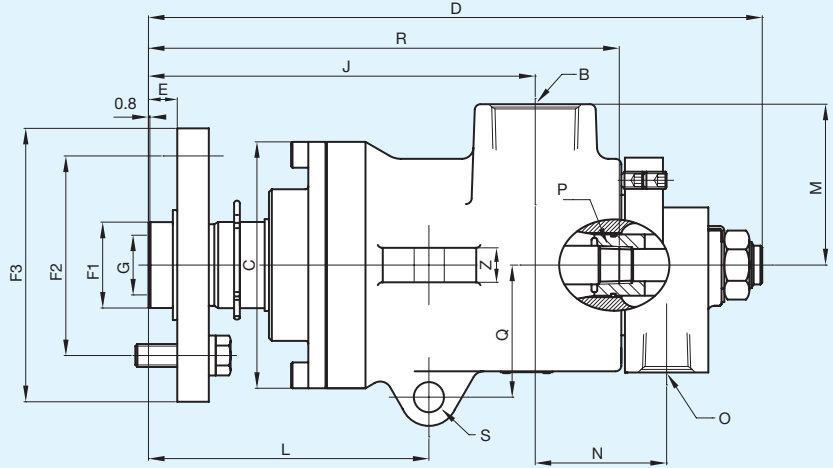
1 1/4"

2"

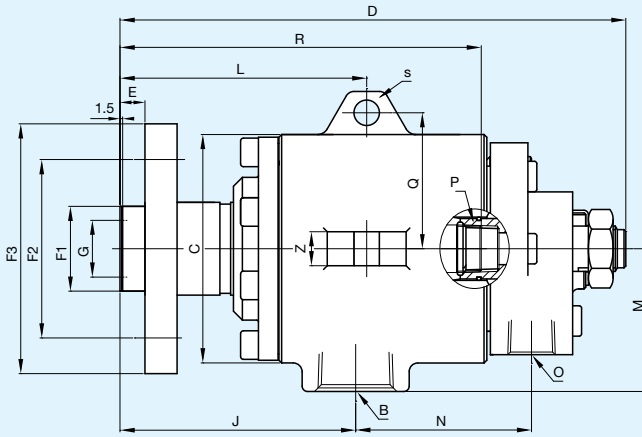


P007661

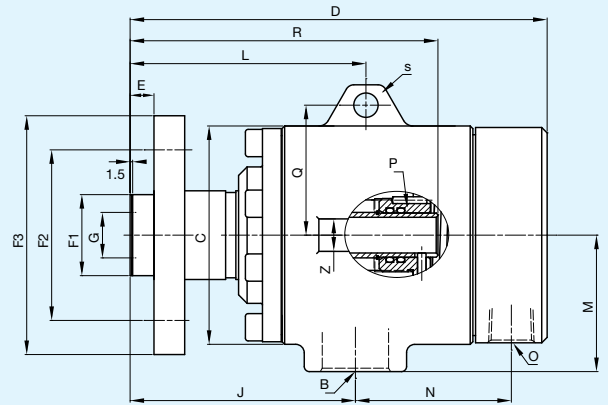
17894K



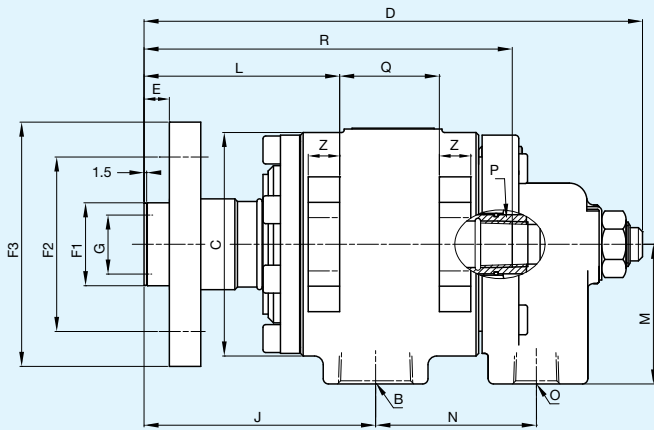
HPS A (HPS-600004)



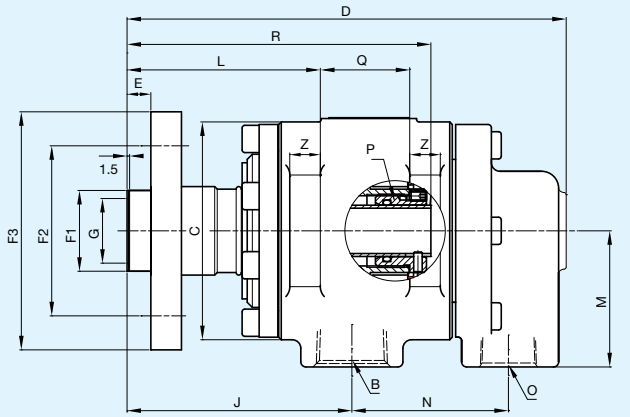
HPS B with Stationary Siphon (H40-052-220737)



HPS B with Rotating Siphon (H40-058-223741)



HPS C with Stationary Siphon (HS40-500013) with 3/4"-10 UNC Rods*
HPS C with Stationary Siphon (HS40-500014) with M20 x 2.5 Rods*



HPS C with Rotating Siphon (HS40-500016) with 3/4"-10 UNC Rods**
HPS C with Rotating Siphon (HS40-500015) with M20 x 2.5 Rods**

Union	Ordering Number	Siphon Size	B Port NPT	O Port NPT	C Ø	D	E	F1 Ø	F2 Ø	F3 Ø	G Ø	J	L	M	N	P	Q	R	S Ø	Z	Ship Weight
HPS A	HPS-600004	1/2"	1 1/2"	3/4"	5 23/64"	13 23/64"	5/8"	1.870" / 1.868"	4 3/4" or 3 15/16" (4X) 9/16" Holes	5 61/64"	1 19/64"	8 27/64"	6 7/64"	3 1/2"	2 55/64"	1/2" NPT	2 7/8"	10 1/4"	2 1/32"	3/4"	38#
HPS B	H40-052-220737	3/4"	1 1/4"	3/4"	5 1/32"	11 5/32"	35/64"	1.870" / 1.868"	3 15/16" (4X) 9/16" Holes	5 33/64"	1 1/2"	5 13/64"	5 7/16"	3 5/32"	3 7/8"	3/4" NPT	3"	7 31/32"	9/16"	3/4"	38#
HPS B	H40-058-223741	3/4"	1 1/4"	3/4"	5"	9 5/8"	35/64"	1.870" / 1.868"	3 15/16" (4X) 9/16" Holes	5 33/64"	1 1/2"	5 13/64"	5 7/16"	3 5/32"	3 5/8"	1.017" / 1.015"	3"	7 7/64"	9/16"	3/4"	38#
HPS C	See above*	3/4"	1 1/4"	3/4"	5 3/64"	11 1/4"	5/16"	1.870" / 1.868"	3 15/16" (4X) 9/16" Holes	5 33/64"	1 1/2"	5 13/64"	4 13/32"	3 5/32"	3 5/8"	3/4" NPT	2 1/4"	8 9/16"	N/A	3/4"	45#
HPS C	See above**	1"	1 1/4"	3/4"	5 3/64"	10 1 1/64"	35/64"	1.870" / 1.868"	3 15/16" (4X) 9/16" Holes	5 33/64"	1 1/2"	5 13/64"	4 13/32"	3 5/32"	3 5/8"	1.187" / 1.185"	8 1/16"	7 1/32"	N/A	45/64"	45#

CORRUGATING OVERVIEW

Steam Joints

DEUBLIN steam joint and siphon systems enhance productivity by more reliably inducing steam into the rolls and removing condensate.

DEUBLIN systems eliminate a number of common problems:

- ⊗ Broken siphons
- ⊗ Short seal life
- ⊗ Leaking gaskets
- ⊗ Cold spots
- ⊗ Inability to adjust siphons
- ⊗ Broken rotors
- ⊗ Blistering

Types of Steam Joints:

Self-Supported and Rod-Supported

Self-supported steam joints are single-piece units that mount directly onto the roll journal, simplifying installation and replacement. Carbon graphite bushings support the steam joint housing relative to the rotor.

Rod-supported steam joints are mounted on support rods that are secured to the frame of the machine. This rigid support allows the steam joint to withstand side loads applied by the steam and condensate hoses.

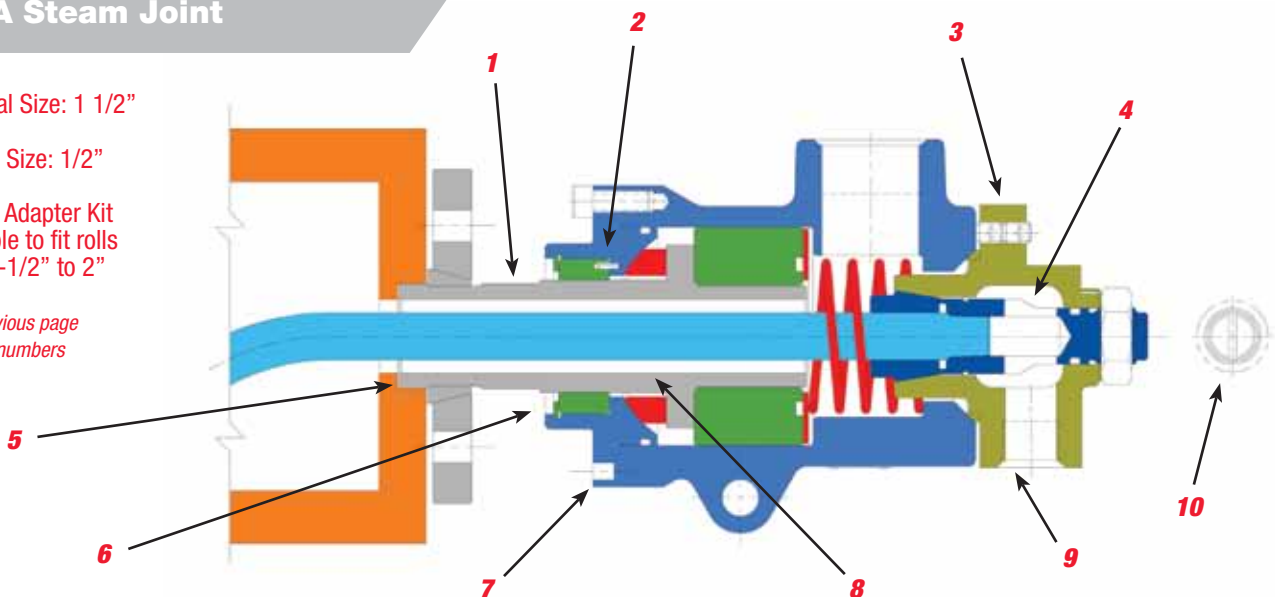
Features

- 1.** Heavy Duty Rotor eliminates rotor breakage and enhances operator mechanic safety
- 2.** Convex Seal Ring keeps carbon in compression (4 times stronger than concave rings in tension) to better withstand vibration, mechanical and thermal shock and pressure spikes
- 3.** Exclusive externally adjustable siphon orientation and clearance provides optimum condensate removal, improves heat transfer and helps eliminate blistering
- 4.** Clamping siphon support for increased siphon rigidity
- 5.** Large contact surface area provides better gasket sealing surface
- 6.** Seal Wear Indicator aids planned maintenance
- 7.** Jacking Screw allows ease of disassembly
- 8.** Heavy-duty thick wall rotor withstands greater torsion stress; eliminates rotor failures and enhances worker safety
- 9.** Adjustable End Cap can be oriented at multiple angles
- 10.** Alignment Slot ensures siphon drop leg at vertical downward position within the roll; split collar ensures rigid and secure attachment of siphon pipe

HPS A Steam Joint

- Nominal Size: 1 1/2"
- Siphon Size: 1/2"
- Flange Adapter Kit available to fit rolls from 1-1/2" to 2"

See previous page for part numbers





Since its establishment in 1945, **DEUBLIN** has consistently adhered to a policy of producing the best product of its kind in the market. The result of this policy has been constant growth through the years. For this progress we are grateful to our many loyal customers. We cordially invite you to visit our modern manufacturing facilities in Waukegan, Illinois; Hofheim a. Ts., Germany; Monteveglio, Italy; and Dalian, China.

Sincerely,

Donald L. Deubler
Chairman of the Board



Global Headquarters in Waukegan, Illinois, U.S.A.



Hofheim a. Ts., Germany



Monteveglio, Italy



Dalian, China



DEUBLIN products & services are available throughout the world.

www.deublin.com

AMERICAS

DEUBLIN USA

2050 Norman Drive
Waukegan, IL 60085-6747 U.S.A.
Phone: +1 847 689-8600
Fax: +1 847 689-8690
e-mail: customerservice@deublin.com

DEUBLIN Brazil

Rua Santo Antonio, 1426 - Vila Galvão
Guarulhos, São Paulo Brazil 07071-000
Phone: +55 11-2455-3245
Fax: +55 11-2455-2358
e-mail: deublinbrasil@deublinbrasil.com.br

DEUBLIN Canada

3090 Boul. Le Carrefour, Suite 505
Laval, Québec H7T 2J7 Canada
Phone: +1 514 745-4100
Fax: +1 514 745-8612
e-mail: customerservice@deublin.com

DEUBLIN Mexico

Norte 79-A No. 77, Col. Claveria
02080 Mexico, D.F.
Phone: +52 55-5342-0362
Fax: +52 55-5342-0157
e-mail: deublin@prodigy.net.mx

ASIA

DEUBLIN China

No. 2, 6th DD Street, DD Port Dalian
Liaoning Province, 116620, P.R. China
Phone: +86 411-87549678
Fax: +86 411-87549679
e-mail: info@deublin.cn

China Merchants Plaza 12th Floor,
Suite (East) 1208, 333 Chengdubei Road
Shanghai, 200041, P.R. China
Phone: +86 21-52980791
Fax: +86 21-52980790
e-mail: service@deublin.cn

Room 1302, Metro Plaza,
No. 183 Tian He Bei Road
GuangZhou, 510620, P.R. China
Phone: +86 20-87569013
Fax: +86 20-87569013
service@deublin.cn

DEUBLIN Asia Pacific

51 Goldhill Plaza, #11-11/12
Singapore 308900
Phone: +65 6259-9225
Fax: +65 6259-9723
email: deublin@singnet.com.sg

DEUBLIN Japan

2-13-1, Minamihanayashiki
Kawanishi City 666-0026, Japan
Phone: +81 72-757-0099
Fax: +81 72-757-0120
e-mail: customerservice@deublin-japan.co.jp

2-4-10-3F Ryogoku
Sumida-Ku, Tokyo 130-0026, Japan
Phone: +81 35-625-0777
Fax: +81 35-625-0888
e-mail: customerservice@deublin-japan.co.jp

DEUBLIN Korea

Star Tower #1003, Sangdaewon-dong 223-25,
Jungwon-gu, Seongnam-si, Gyeonggi-do,
South Korea
Phone: +82-31-8018-5777
Fax: +82-31-8018-5780
e-mail: customerservice@deublin.co.kr

EUROPE

DEUBLIN Germany

Nassaustraße 10
65719 Hofheim a. Ts., Germany
Phone: +49 6122-8002-0
Fax: +49 6122-15888
e-mail: info@deublin.de

DEUBLIN Italy

Via Guido Rossa 9
40050 Monteveglio (BO), Italy
Phone: +39 051-835611
Fax: +39 051-832091
e-mail: info@deublin.it

Via Giovanni Falcone 36
20010 Bareggio (MI), Italy
Phone: +39 02-90312711
Fax: +39 02-90278189
e-mail: info@deublin.it

DEUBLIN Austria

Trazerberggasse 1/2
1130 Wien, Austria
Phone: +43 1-8768450
Fax: +43 1-876845030
e-mail: info@deublin.at

DEUBLIN France

61 bis, Avenue de l'Europe
Z.A.C de la Malnoue
77184 Emerainville, France
Phone: +33 1-64616161
Fax: +33 1-64616364
e-mail: service.client@deublin.fr

DEUBLIN Poland

ul. Kamienskigo 201-219
51-126 Wrocław, Poland
Phone: +48 71-3528152
Fax: +48 71-3207306
e-mail: info@deublin.pl

DEUBLIN Russia

ul. Kosygina, 13, 5th entrance, 1-st floor
119334, Moscow, Russia
Phone: +7 495 647-14-34
Fax: +7 495 938-89-49
e-mail: info@deublinrussia.ru

DEUBLIN Spain

C/Lola Anglada, 20 local 1,
08228 Terrassa, Spain
Phone: +34 93-2211223
Fax: +34 93-2212093
e-mail: deublin@deublin.es

DEUBLIN Sweden

Cylindervägen 18, Box 1113
13 126 Nacka Strand, Sweden
Phone: +46 8 716 2033
Fax: +46 8 601 3033
e-mail: info@deublin.se

DEUBLIN United Kingdom

6 Sopwith Park, Royce Close, West Portway
Andover SP10 3TS, UK
Phone: +44 1264-333355
Fax: +44 1264-333304
e-mail: deublin@deublin.co.uk