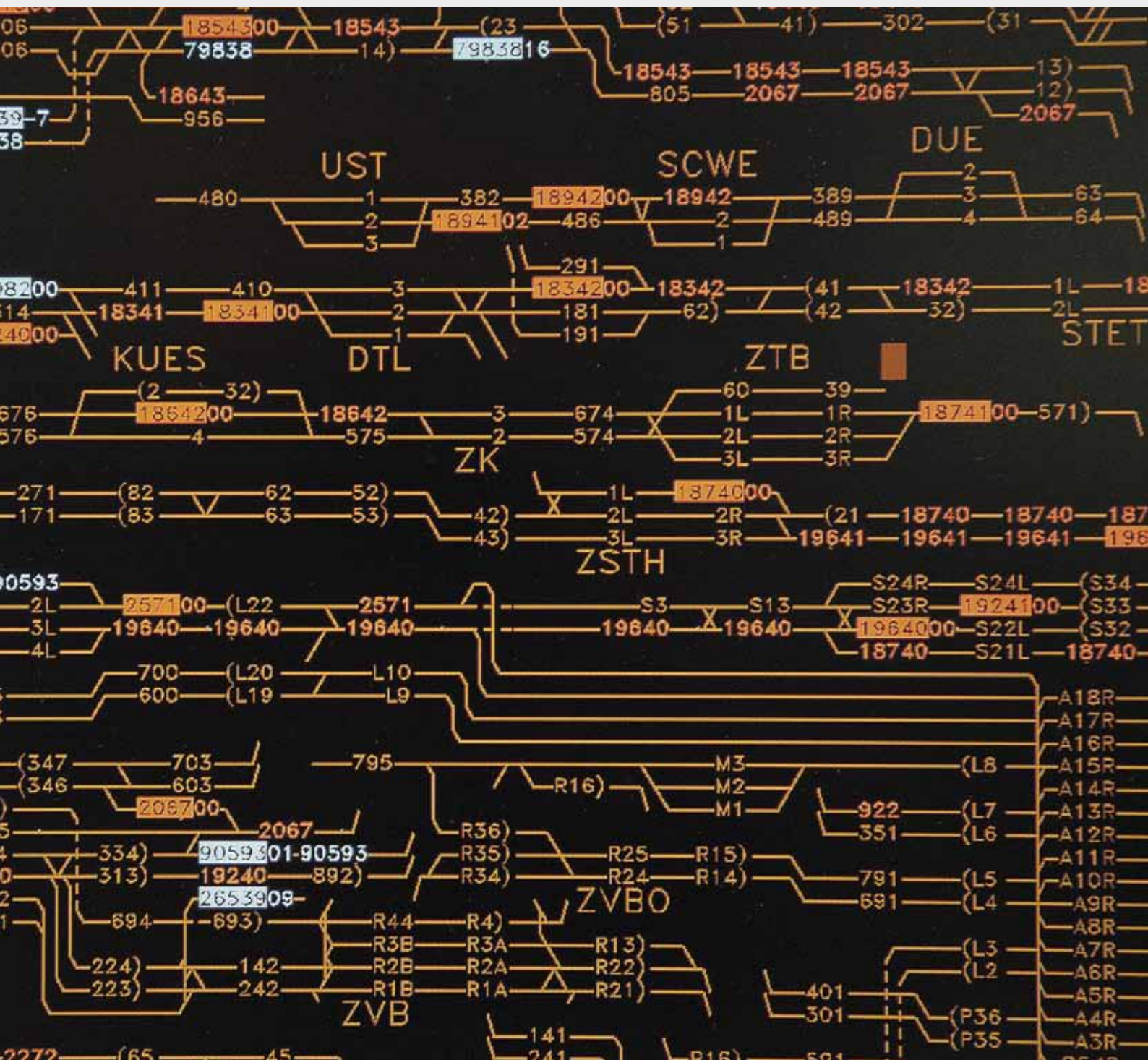


Railway Cable Systems

References 2010/2011



Competence in connectivity





Interdisciplinary knowledge

The HUBER+SUHNER Group is a leading international manufacturer of electrical and optical interconnectivity components and systems. Our main markets are communication, transport and industry. At HUBER+SUHNER, we combine technological capabilities in the three core fields of *Radio Frequency*, *Fiber Optics* and *Low Frequency*.

HUBER+SUHNER's vast expertise and experience in the Global Railway Market, along with our qualified employees enables us to undertake highly complex projects across the boundaries of individual disciplines. HUBER+SUHNER Railway Cable Systems Unit is prepared to take on any challenge - whether geographical or technical, HUBER+SUHNER has the global footprint and local personnel to support and solve your business challenges. Sharp growth rates demonstrate impressively that the market acknowledges HUBER+SUHNER's technological leadership. This is borne out by the fact that renowned market leaders around the world trust the services of HUBER+SUHNER.

As our partner and customer, you will benefit from:

- Our unique global production and distribution network
- Our unique product capabilities in the areas of - Low Frequency - Radio Frequency - Fiber Optics
- Our global project management skills

Competence in connectivity



HUBER+SUHNER railway inter-vehicle solution



STADLER Rail AG

Page 7

ALSTOM Transport

Page 11

BOMBARDIER Transportation

Page 13

Downer EDi Rail

Page 17

ThyssenKrupp Transrapid GmbH

Page 19

SIEMENS AG

Page 21

Where we are

Page 23





SOB

526 041-9

Market leaders trust HUBER+SUHNER

STADLER Rail AG

Services provided by HUBER+SUHNER for STADLER Rail AG

- Project evaluation
- Development
- Production
- Logistics

Added value for STADLER Rail AG

- RADOX® railway cables developed to meet specific customer needs
- Tested and optimised solutions
- Quick response to project changes
- Low project risks
- Just in time deliveries



DOSTO Electric double deck train with inter-vehicle systems from HUBER+SUHNER

Project share of HUBER+SUHNER

- Consulting
- Cable design and production
- Design and production of special strain relief grommets
- System Engineering
- Production
- Logistics
- Quality Assurance

Customer requirements

- Long project running time
- Cable fire performance requirements in accordance with European Standards
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised solutions

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



GTW internal cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Project management by HUBER+SUHNER
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- RADOX® railway cables developed to meet specific customer needs
- Tested and optimised cable solutions

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



GTW with inter-vehicle systems in conduit solution

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Short project running time
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised cable solutions

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



FLIRT with inter-vehicle systems in conduit solution

Project share of HUBER+SUHNER

- Development evaluation

Customer requirement

- Short project running time
- Processing of 3 supplier components (70 % of the products supplied)

Commercial customer value

- Reduction of the number of prototypes = reduction of costs
- Professional change management



RhB-ZTZ Rhaetian Railway dual-voltage rail car with inter-vehicle systems provided by HUBER+SUHNER

Project share of HUBER+SUHNER

- Consulting
- Cable design and production
- Design and production of special strain relief grommets
- System Engineering
- Production, Logistics, Quality Assurance

Customer requirement

- System solution from a single source
- Low project risks
- Just in time delivery

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



Market leaders trust HUBER+SUHNER

ALSTOM Transport

Services provided by HUBER+SUHNER to ALSTOM Transport

- Development
- Production
- Logistics

Added value for ALSTOM Transport

- RADOX® railway cables developed to meet specific customer needs
- Tested and optimised solutions
- Quick response to project changes
- Low project risks
- Just in time deliveries



C455 renewal of carriage cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- LUL2 standard
- Detailed project documentation

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- RADOX® railway cables developed to meet specific customer needs
- Detailed project documentation
- Professional change management

Commercial customer value

- Low project risks



Braunschweig Hbf

DB

146 107-8

Market leaders trust HUBER+SUHNER

BOMBARDIER Transportation

Services provided by HUBER+SUHNER to BOMBARDIER Transportation

- Development
- Production
- Logistics

Added value for BOMBARDIER Transportation

- RADOX® railway cables developed to meet specific customer needs
- Tested and optimised solutions
- Cost-efficient pre-fabricated solutions
- Low project risks
- Just in time deliveries
- Global production and distribution network



MOVIA Metro Delhi carriage cable assemblies, inter-vehicle systems, e-cabinets

Project share of HUBER+SUHNER

- Development
- Production
- Logistics
- Integration on the vehicle

Customer requirement

- International project management (DE, GB, IND)
- Short project running time

Technical customer value

- Perfectly coordinated HUBER+SUHNER products

Commercial customer value

- Cost reduction by smart international manufacturing concept
- Coordination of all subprojects through experienced project managers
- Quick response to project changes
- Low project risks



BR185 power cable assemblies

Project share of HUBER+SUHNER

- Production
- Logistics

Customer requirement

- Short project running time
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised cable solutions

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



Gautrain carriage cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Short project running time
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised cable solutions
- logistics concept simplifies installation in train

Commercial customer value

- Cost reduction by smart international manufacturing concept
- Reduced project costs thanks to economies of scale



C-315 renewal of carriage cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Short project running time
- Detailed project documentation

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised cable solutions
- Special-purpose tools supplied by HUBER+SUHNER
- Detailed project documentation

Commercial customer value

- Cost reduction by smart international manufacturing concept
- Reduced project costs thanks to economies of scale
- Professional change management



Turbostar carriage cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Short project running time
- Fixed price

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised cable solutions

Commercial customer value

- Cost reduction by smart international manufacturing concept
- Reduced project costs through synergies from high-volume production



CityRail

A
01

Market leaders trust HUBER+SUHNER

Downer EDi Rail

Services provided by HUBER+SUHNER to Downer EDi Rail

- Development
- Production
- Logistics

Added value for Downer EDi Rail

- Tested and optimised solutions
- Quick response to project changes
- Low project risks
- Just in time deliveries



DEDIR PPP carriage cable assemblies

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- International project management (AUS, CN)
- Short project running time
- Complex subcontractor situation

Technical customer value

- Perfectly coordinated HUBER+SUHNER products

Commercial customer value

- Low project risks
- Cost reduction by smart international manufacturing concept
- Quick response to project changes



Transrapid



Market leaders trust HUBER+SUHNER

ThyssenKrupp Transrapid GmbH

Services provided by HUBER+SUHNER to ThyssenKrupp Transrapid GmbH

- Development
- Production
- Logistics

Added value for ThyssenKrupp Transrapid GmbH

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised solutions
- Low project risks
- Just in time deliveries



MAGLEV Cable assembly

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Complex logistics requirements
- Short project running time

Technical customer value

- Perfectly coordinated HUBER+SUHNER products

Commercial customer value

- Cost-effective pre-fabricated solution
- Professional change management
- Low project risks
- Just in time delivery



Market leaders trust our HUBER+SUHNER

SIEMENS AG

Services provided by HUBER+SUHNER to SIEMENS AG

- Development
- Production
- Logistics

Added value for SIEMENS AG

- Perfectly coordinated HUBER+SUHNER products
- Tested and optimised solutions
- System cable solutions for inter-vehicle systems
- Low project risks
- Just in time deliveries



VELARO D inter-vehicle systems designed and developed by HUBER+SUHNER. Inter-vehicle systems suspended under carriage coupling

Project share of HUBER+SUHNER

- Development and design of networked RADOX system cables in accordance with fire protection requirements:
 - CEN/TS 45545
 - DIN 5510-2
 - NF F 16-101/-102/-103
 - UNI CEI 11170-1/-2/-3
- Development and design of cable conduits and their suspension for installation of RADOX system cable
- Production
- Logistics

Customer requirement

- Minimum bending radii
- Static and dynamic loading
- Aerodynamics and stone impact protection
- Weight management
- Service friendliness
- Increased performance requirements as a result of assemblies being used externally on very high speed trains
- Product validation by extensive testing

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- System solutions optimally developed to customer requirements
- Tested and optimised cable solutions

Commercial customer value

- Cost-efficient pre-fabricated solutions
- Low project risks
- Just in time delivery



DESIRO double deck EMU inter-vehicle systems from HUBER+SUHNER

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Short project running time
- Fixed price

Technical customer value

- Solution optimally developed to meet customer requirements
- Tested and optimised carriage transitions

Commercial customer value

- Predictable costs thanks to fixed price
- Low project risks
- Just in time delivery



ICE3 inter-vehicle systems from HUBER+SUHNER

Project share of HUBER+SUHNER

- Development
- Production
- Logistics

Customer requirement

- Static and dynamic stressing
- Increased requirements owing to outdoor applications in very high speed trains
- Proof of quality by testing

Technical customer value

- Perfectly coordinated HUBER+SUHNER products
- Developed solution demonstrably tailored to customer needs
- Tested and optimised carriage transitions as system cables

Commercial customer value

- Cost-effective pre-fabricated solution
- Low project risks
- Just in time delivery

Railway Cable Systems. Wherever you are.

AUSTRALIA

HUBER+SUHNER (Australia) Pty Ltd
Unit 6, 4 Skyline Place Frenchs Forest
AU-Sydney NSW 2086
Phone +61 (0)2 8977 1200
Fax +61 (0)2 9972 7549
info.au@hubersuhner.com

AUSTRIA

HUBER+SUHNER GmbH
Zweigniederlassung
Concorde Business Park 1/B6/103
2320 Schwechat / Österreich
Phone +43 (0)1 706 83 03
Fax +43 (0)1 706 83 04
info.de@hubersuhner.com

BRAZIL

HUBER+SUHNER
América Latina Ltda
Rodovia Presidente Dutra, Km 154,7
Limoeiro - São José dos Campos - SP
Prédio 04 - CEP 12240-420
Phone +55 12 3946 9500
Fax +55 12 3946 9528
info.br@hubersuhner.com

CANADA

HUBER+SUHNER (Canada), Ltd.
19 Thompson Drive
Essex Jct., VT 05452 / USA
Phone +1 866 482 3778
Fax +1 802 878 9880
info.na@hubersuhner.com

CHINA

HUBER+SUHNER (Hong Kong) Ltd
Unit 1101 & 1121, Level 11, Tower 1
Grand Central Plaza
No. 138 Shatin Rural Committee Road
Shatin, N.T., HK-Hong Kong
Phone +852 2866 6600
Fax +852 2866 6313
webenq.hk@hubersuhner.com

HUBER+SUHNER (Shanghai) Co., Ltd
Part B 2-3, 2/F
333 Fu Te Xi Yi Road Waigaoqiao
CN-Shanghai 200131, P.R. China
Phone +86 21 5899 3808
Fax +86 21 5899 1860
info.shanghai@hubersuhner.com

HUBER+SUHNER (Shanghai)
Transmission & Communication
Manufacture Co., Ltd
1330, Jin Hu Road
Jin Qiao, Pu Dong New District
CN-Shanghai 201206, P.R. China
Phone +86 21 5899 3808
Fax +86 21 5899 1860
infoshanghai@hubersuhner.com

HUBER + SUHNER
Electrical Equipment Manufacture
(Shanghai) Co., Ltd.
5001 Hua Dong Road, Jinqiao
Export Processing Zone (South Area),
Pudong New District,
Shanghai, 201201, P.R. China
Phone +86 21 58993808
Fax +86 21 51010006

DENMARK

HUBER+SUHNER A/S
Kirke Vaerløsevej 14
DK-3500 Vaerløse
Phone +45 48 100 500
Fax +45 48 100 555
info.dk@hubersuhner.dk

UAE & MIDDLE EAST

HUBER + SUHNER
Middle East Trading LLC
European Business Center (EBC)
Office 156
Greenn Community
Dubai Investments Park
P.O. Box 75843
Dubai / United Arab Emirates
Phone +971 50 515 84 62
info.me@hubersuhner.com

FRANCE

HUBER+SUHNER France
21 E, rue Jacques-Cartier
FR-78960 Voisins-le-Bretonneux
Phone +33 1 61 37 25 55
Fax +33 1 30 64 73 68
info.fr@hubersuhner.com

GERMANY

HUBER+SUHNER GmbH
Mehlbeerenstr. 6
DE-82024 Taufkirchen
Phone +49 (0)89 612 01 0
Fax +49 (0)89 612 01 162
info.de@hubersuhner.com

INDIA

HUBER+SUHNER Electronics
Private Limited
682, Udyog Vihar, Phase V
IN-Gurgaon 122 016, Haryana
Phone +91 124 4526100/200
Fax +91 124 410 27 04
info.in@hubersuhner.com

MALAYSIA

HUBER+SUHNER
(Malaysia) Sdn. Bhd.
No. 2, Jalan Pensyarah U1/28
HICOM Glenmarie Industrial Park
40150 Shah Alam
Selangor / Malaysia
Phone +60 3 7628 0202
Fax +60 3 7628 0303
info.my@hubersuhner.com

POLAND

HUBER+SUHNER Sp. z o.o.
Ul. Baldowska 26
PL-83-110 Tczew
Phone +48 58 560 2100
Fax +48 58 560 2172
info.pl@hubersuhner.com

RUSSIA

HUBER+SUHNER AG
Representative Office
Leninski Prospekt 113/1
Office C 404
117198 Moscow / Russia
Phone +7 495 775 66 53
Fax +7 495 775 77 94
info.ru@hubersuhner.com

SINGAPORE

HUBER+SUHNER (Singapore) Pte Ltd
11 Chang Charn Road
#05-02 Shiro House
SG-Singapore 159640
Phone +65 6473 5500
Fax +65 6473 5522
info.sg@hubersuhner.com

SWEDEN

HUBER+SUHNER AB
Knarrarnäsgatan 7
Box 1247
SE-164 28 Kista
Phone +46 8 447 5200
Fax +46 8 447 5201
info.se@hubersuhner.com

SWITZERLAND

HUBER+SUHNER AG
CH-9100 Herisau
Phone +41 71 353 41 11
Fax +41 71 353 44 44
info@hubersuhner.com

HUBER+SUHNER AG

CH-8330 Pfäffikon ZH
Phone +41 44 952 22 11
Fax +41 44 952 24 24
info@hubersuhner.com

THAILAND

HUBER + SUHNER (Thailand) Co., Ltd.
896/3 SV City Office Tower 1
4th Floor, Rama III road,
Kwaeng Bangpongpan, Khet Yannawa
Bangkok 10120 / Thailand
Phone +66 2 682 6868
Fax +66 2 682 6669
info.th@hubersuhner.com

UNITED KINGDOM

HUBER+SUHNER (UK) Limited
Telford Road
GB-Bicester
Oxfordshire OX26 4LA
Phone +44 1 869 364 100
Fax +44 1 869 249 046
info.uk@hubersuhner.com

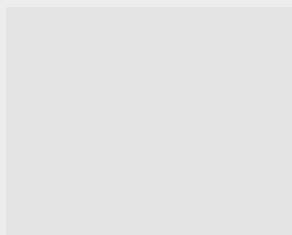
USA

HUBER+SUHNER, Inc.
19 Thompson Drive
Essex Jct., VT 05452 / USA
Phone +1 866 482 3778
Fax +1 802 878 9880
info.na@hubersuhner.com

HUBER+SUHNER is certified according
to ISO 9001, ISO 14001, ISO/TS 16949 and IRIS

WAIVER

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



HUBER+SUHNER AG
Cable Systems
Tumbelenstrasse 20
8330 Pfäffikon/Switzerland
Phone +41 44 952 2211
info@hubersuhner.com



Mixed Sources
Product group from well-managed
forests and other controlled sources
www.fsc.org IMO-COC-028052
© 1996 Forest Stewardship Council



hubersuhner.com