

Reference list



Ref.	Site	Client	Order	Ø m	Length m	Year
332	1667 GWK Ibbenbüren	Züblin / W + F Germany	Logistics system	3,7	4'000	2023
331	1666 FW Hamburg	Future Generation JV Australia	Conveyor system	4,3	1'100	2023
330	1659 HS2 Area Central London	SCS JV Skanska-Costain-Strabag England	Launch TBM Conveyor system			2022
329	1647 GPE Ligne 17-1 France	Groupement AVENIR 75010 Paris France	Conveyor system Drive 2	9,6	2'700	2022
328	1665 Brenner Basistunnel BBT - H41 Austria	Implenia / Webuild Austria	Conveyor system		35'000	2022
327	1664 TELT – Tunnel Euralpin Lyon Turin France	Eiffage GC Infra Linéaires France	Engineering			2022
326	1646 Snowy Hydro 2.0 Australia	Future Generation JV Australia	Special Equipment Crane systems	11		2022
325	1663 HS2 Area Central London	SCS JV Skanska-Costain-Strabag England	Invert Concrete Bridge, Central	8,7	8'900	2022
324	1663 HS2 Area West London	SCS JV Skanska-Costain-Strabag England	Invert Concrete Bridge, West	9,4	6'000	2022
323	1662 SELFRAG Switzerland	SELRFRAG AG Switzerland	Slag-Handling Centro Uno			2022
322	1660 HS2 London-Birmingham England	SCS JV Skanska-Costain-Strabag England	Spoil Treatment Area West			2021
321	1661 Abu Dhabi 3	MCI 8010 Graz Austria	Conveyor system			2021
320	1660 HS2 London-Birmingham England	SCS JV Skanska-Costain-Strabag England	Conveyor system Area West			2021
319	1657 Abu Dhabi 2	MCI 8010 Graz Austria	Conveyor system			2021
318	1659 HS2 London-Birmingham England	SCS JV Skanska-Costain-Strabag England	Conveyor system Area Central	10	30'000	2020
317	1656 Kühtai Austria	ARGE SKW Kühtai Swietelsky-Jäger-Bodner Kühtai, Austria	Back up system to CREG TBM	4,2	25'500	2020
316	1652 Nagra Switzerland	Nagra 5430 Wettingen Switzerland	HOT Bent backfill operation	2,9		2020
315	1655 Les Evouettes Switzerland	Consortium ICG 2074 Marin Epagnier Switzerland	Pont de bétonnage			2020

Ref.	Site	Client	Order	Ø m	Length m	Year
314	1654 Mont Blanc France	Bouygues Construction 69487 Lyon France	Mobile Portal crane			2020
313	1645 Hongrin Switzerland	Groupement CGH Infra Tunnel Switzerland	Equipment Renovation Tunnel			2020
312	1653 Luoming inclined shaft China	CREG China	TBM-Inclined shaft Basic Engineering	7,3		2020
311	1652 Nagra Switzerland	Nagra 5430 Wettingen Switzerland	Engineering Clousure Planner Nuklear	2,9		2020
310	1651 Abu Dhabi	MCI 8010 Graz Austria	Conveyor system 2'000 kW, 8'000 t/h			2020
309	1649 Rodund Austria	Porr 5102 Anthering Austria	Anti slip back system Y-Gripper to TBM, Conveyor system	4,54		2020
308	1650 2. S-Bahn-Stamm-strecke, VE30, Tunnel West und Hauptbahnhof	ARGE Tunnel Hauptbahnhof Züblin-Bauer-Bögl 80634 München	Conveyor system			2020
307	1596 TELT – Tunnel Euralpin Lyon Turin France	Consortium Eiffage- Spie-Ghella-Cogeis France	Engineering			2020
306	1648 GPE Ligne 15 Lot T2A France	Groupement Horizon 94400 Vitry-sur-Seine France	Concrete bridge n° 2			2020
305	1648 GPE Ligne 15 Lot T2A France	Groupement Horizon 94400 Vitry-sur-Seine France	Concrete bridge n° 1			2020
304	1632 GPE Ligne 15 Lot T3A France	Bouygues / Soletanche Bachy France	Feeding system Grave ciment			2019
303	1643 NAGRA Switzerland	Nagra 5430 Wettingen Switzerland	Hot Bent Anpassung Anlage Lucoex			2019
302	1647 GPE Ligne 17-1 France	Groupement AVENIR 75010 Paris France	Conveyor system	9,8	6'000	2019
301	1646 Snowy 2.0 Australia	Salini Impregilo S.p.A 20142 Milano, Italien	3 Conveyor system	10,6	1 x 6'000 1 x 7'000 1 x 14'000	2019
300	1640 SBT 1.1 Austria	ARGE Tunnel Gloggnitz 2640 Gloggnitz, Austria	Conveyor system CAB			2019
299	1641 SBT 2.1 Austria	ARGE Tunnel Fröschnitzgraben 8685 Steinhaus am Semmering Austria	Booster drive			2019
298	BBT AP 164 Austria	Arge Tulfes Pfonds 6020 Innsbruck, Austria	Booster station	7,9	18'000	2019
297	1644 Citylink Stockholm Sweden	JV HOCHTIEF Implenia HB 164 40 Kista, Sweden	Conveyor system	5,2	13'500	2019
296	1645 Hongrin Switzerland	Infra Tunnel SA 2074 Marin Switzerland	Electro loco			2019
295	Lukmanier Switzerland	Vetsch Klosters AG 7252 Klosters Dorf	Handling adapter			2019

Ref.	Site	Client	Order	Ø m	Length m	Year
294	1643 NAGRA Switzerland	Nagra 5430 Wettingen Switzerland	Feasibility study			2019
293	1642 GPE Ligne 11 GC01 France	Alliance 93110 Rosny-Sous-Bois France	Conveyor system			2019
292	1641 SBT 2.1 Austria	ARGE Tunnel Fröschnitzgraben 8685 Steinhaus am Semmering Austria	Conveyor system			2019
291	1640 SBT 1.1 Austria	ARGE SBT 1.1 – Tunnel Gloggnitz 2640 Gloggnitz, Austria	Bunker / Silo			2019
290	1639 LEB Lausanne, Switzerland	Consortium IBGS 1004 Lausanne Switzerland	Concrete bridge			2019
289	1638 Koralm KAT 3 Austria	Porr Tunnelbau 9470 St. Paul im Lavanttal Austria	Shotcrete installation			2018
288	1637 Koralm KAT 2 Austria	Arge Koralmtunnel Strabag – Jäger Bau 8530 Germanysberg	Drilling rig			2018
287	1635 Koralm KAT 3 Austria	Porr Tunnelbau 9470 St. Paul im Lavanttal Austria	Crane installation			2018
286	1634 Mekorot Israel	JV Züblin-Jäger Ramat Gan 52511, Israel	Shotcrete installation			2018
285	1632 GPE Ligne 15, Lot T3A France	Soletanche Bachy France 92500 Rueil Malmaison Cedex France	Conveyor belt installations			2018
284	1631 GPE Ligne 15, Lot T2A France	Soletanche Bachy France 94400 Vitry-sur-Seine France	Conveyor belt installations		1'110	2018
283	1629 Trimberg Austria	Strabag AG 2345 Brunn am Gebirge Austria	Adjustment Foil placing machine			2017
282	1630 Mont Blanc France	Spie batignolles TPCI 92100 Boulogne Billancourt France	Portal crane			2017
281	1628	Epiroc MEYCO AG 2557 Studen BE Switzerland	CE-Conformity to drilling unit FlexiROC / T30 R-01 spez.			2017
280	1596 TELT – Tunnel Euralpin Lyon Turin France	Consortium SMP4 73140 Saint Martin La Porte France	Modification conveyor installation			2017
279	1622 Metro Lausanne Switzerland	Consortium IBGS p/a Infra Tunnel SA 2074 Marin NE, Switzerland	Storage silo with conveyor installation			2017
278	1616 Tuxbach Überleitung Austria	G. Hinteregger Söhne 5020 Salzburg Austria	Adjustment and additional supply for back-up system TBM			2017
277	1616 TELT – Tunnel Euralpin Lyon Turin France	Consortium SMP4 73 140 Saint Martin La Porte France	Discharge of open grain installation			2017
276	1616 New Stoosbahnen Switzerland	Vetsch Klosters AG Klosters Dorf Switzerland	Displacing installation			2016
275	1616 Carrières d'Arvel Switzerland	Carrières d'Arvel SA Villeneuve VD Switzerland	Conveyor belt installations			2016

Ref.	Site	Client	Order	Ø m	Length m	Year
274	1616 Brenner BBT AP164 Austria	Arge Tulfes-Pfons Strabag / Salini Impregilo Austria	Fire-fighting transport wagon			2016
273	1619 CE-Konformität	BMTI GmbH 80807 München Germany	CE-conformity for existing TBM-systems			2016
272	1612 New Stoosbahnen Switzerland	Vetsch Klosters AG Klosters Dorf Switzerland	Feasibility study for Displacing installation			2016
271	1607 KW Rhône Gletsch Switzerland	Strabag Erstfeld Switzerland	Back-up and conveyor belt equipment			2015
270	1601 Brenner BBT AP164 Austria	Arge Tulfes-Pfons Strabag / Salini Impregilo Austria	Rowatrain			2015
269	1596 TELT – Tunnel Euralpin Lyon Turin France	Consortium SMP4 73 140 Saint Martin La Porte France	Conveyor belt installations	11,25	13'300	2015
268	1587 Crossrail C610 England	ATC systemwide London, E14 4HA Great Britain	Semi-Automated Tunnel Drilling Machines			2015
267	1591 TPG CMS Switzerland	Implenia Suisse SA Aarau Switzerland	Conveyor belt installations		1'520	2015
266	1595 Brenner BBT AP164 Austria	Arge Tulfes-Pfons Strabag / Salini Impregilo Austria	Conveyor belt installations	7,9	19'500	2015
265	1586 SiSto N8 Giessbach Switzerland	Arge SiSto N8 Giessbach 3855 Brienz Switzerland	Conveyor belt installations		3'300	2014
264	1582 SiSto N8 Giessbach Switzerland	Arge SBT 39100 Bolzano Italy	Back-up installation	5,2	3'319	2013
263	1577 NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Test installation			2013
262	1569 NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study			2013
261	1564 Kraftwerk Lint Limmern Switzerland	Arge Zugangsstollen Limmern Limmern Switzerland	Footing elements displacing equipment			2013
260	1563 Rapido Switzerland	Belloli SA 6537 Grono Switzerland	Engineering			2013
259	1561 Kraftwerk Lint Limmern Switzerland	Arge Zugangsstollen Limmern Limmern Switzerland	Installation for footing element			2012
258	1514 Kraftwerk Lint Limmern Switzerland	Arge Zugangsstollen Limmern Limmern Switzerland	Crane installation			2012
257	1514 Atlas Copco / RioTinto Sweden	Atlas Copco 13135 Nacka Sweden	Heading installation			2012
256	1514 Innertkirchen Switzerland	Murer AG / Strabag AG Erstfeld Switzerland	Engineering			2011
255	1514 Alaskan Way USA	Dragados USA New York USA	Feasibility study			2011

Ref.	Site	Client	Order	Ø m	Length m	Year
254	1514 NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study			2011
253	1523 Northparkes Mines Australia	Aker Wirth GmbH 41812 Erkelenz Germany	Heading installation			2011
252	1503 Koralm Kat2 Austria	Aker Wirth GmbH 1812 Erkelenz Germany	2 Back-up installation	9,9	32'900	2011
251	1528 Kaiserstuhl Switzerland	Murer AG / Strabag AG Erstfeld Switzerland	Engineering			2010
250	1526 ATW Switzerland	Icos Tunnelling SA 6537 Grono Switzerland	Re-use			2010
249	Bodio / Faido Switzerland	Conorzio IGS SikaBau AG / Tecton AG Switzerland	Adjustment of FVM Wurmino			2010
248	Rohtang India	Strabag AG, Afcons JV New Delhi 110 057 India	Heading installation drill and blast		6'800	2010
248	Rohtang India	Strabag AG, Afcons JV New Delhi 110 057 India	Conveyor belt installation		6'800	2010
247	Ceneri Base Tunnel Switzerland	Conorzio Condotte Cossi 00138 Rom, Italy	4 Heading installations drill and blast		11'500	2010
247	Ceneri Base Tunnel Switzerland	Conorzio Condotte Cossi 00138 Rom, Italy	4 Conyevor belt installations		11'500	2010
246	OAo Mosmetrostroy Russia	OAo Mosmetrostroy 127051 Moscow, Russia	Feasibility study			2010
245	Bodio / Faido Switzerland	Conorzio TAT 6760 Faido Switzerland	1 Ventilation Installation			2010
244	Atlas Copco / RioTinto Sweden	Atlas Copco 19582 Märsta Sweden	Feasibility study			2010
243	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study			2009
242	Kraftwerk Lint Limmern Switzerland	Arge Zugangsstollen Limmern Limmern Switzerland	Back-up installation with anti slip system and supply train	8	3'760	2009
242	Kraftwerk Lint Limmern Switzerland	Arge Zugangsstollen Limmern Limmern Switzerland	Conveyor belt installations	8	3'760	2009
241	Reitersberg Austria	Arge Tunnel Reitersberg 6020 Innsbruck, Austria	Resoling bridge			2009
240	UTE La Muela II Spain	UTE La Muela II 2846 Madrid, Spain	Shaft installation and Heading installation		719	2009
239	Bodio / Faido Switzerland	Conorzio TAT 6760 Faido Switzerland	2 Ventilation installation			2009
238	ISS Switzerland	ISS Switzerland AG Zürich Switzerland	Feasibility study			2009

Ref.	Site	Client	Order	Ø m	Length m	Year
237	FVM Gunimperm Switzerland	Gunimperm-Bauveg AG 6532 Castione Switzerland	Feasibility study			2009
236	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	Passenger Shuttle			2009
235	Lake Mead Intake 3 Vegas, USA	Vegas Tunnel Construction Las Vegas, NV, 89119, USA	Shaft Installation			2009
234	Sekisui USA	Sekisui SPR Americas, LCC Atlanta, USA	Feasibility study			2009
233	Hilti Germany	Hilti Germany GmbH 86916 Kaufering Germany	Bohring machine 7			2009
232	Umfahrung Küblis Switzerland	Tiefbauamt Kt. GR 7001 Chur Switzerland	Feasibility study			2008
231	North-South Bypass Tunnel Brisbane Australia	Leighton Contractors & Baulder- stone Hornibrook Bilfinger Berger JV Australia	Crane installation			2008
230	Sedrun Switzerland	Arge Transco Sedrun Switzerland	RoCon Shuttle 2			2008
229	Feste Fahrbahn	Bögl Bauunternehmung GmbH & Co. KG 92369 Sengenthal, Germany	Feasibility study			2008
228	UTE La Muela II Spain	UTE La Muela II 2846 Madrid, Spain	Shaft installation and Heading installation		719	2008
227	RioTinto / Wirth Erkelenz	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Feasibility study			2008
226	Atlas Copco / RioTinto Sweden	Atlas Copco 19582 Märsta Sweden	Feasibility study			2008
225	Hilti Switzerland	Hilti Switzerland AG 9494 Schaan Switzerland	automatic drilling system			2008
224	Napoli Italy	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Feasibility study			2008
223	Amsteg Switzerland	Murer AG / Strabag AG 8472 Erstfeld Switzerland	Crane installation			2008
222	UTE M30 Tunnel SUR Spain	UTE M30 Tunnel SUR 2846 Madrid, Spain	Lining segment transloading crane			2008
221	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	Transfer conveyor belt			2008
220	TAT Faido Switzerland	Walo Bertschinger 8952 Schlieren Switzerland	Fire protection mortar installation			2008
219	Durchmesserlinie ZH seccion3 Oerlikon - Switzerland	Arge Tunnel Weinberg 8050 Zürich Switzerland	Supply and disposal installation			2008
218	Tarvisio Italy	I.C.O.P spa 33031 Basiliano Italy	Rope deflection unit at back- up			2008

Ref.	Site	Client	Order	Ø m	Length m	Year
217	CE-Konformität Switzerland	Implenia Bau AG 5001 Aarau Switzerland	CE-conformity for existing TBM-systems			2008
216	CEVA Tunnel de Champel Geneva - Switzerland	B+S AG 3015 Bern Switzerland	Feasibility study			2007
215	Rio Tinto Canada	Rio Tinto Technical Services Limited Vancouver, Canada	Feasibility study II			2007
214	Bodio / Faido Switzerland	Consorzio TAT 6760 Faido Switzerland	2 gantry wagons			2007
213	Sedrun Switzerland	SikaBau AG 8048 Zürich Switzerland	Foil-placing machine for base North	5,8		2007
212	M30-Tunel Sur Spain	U.T.E M-30 TUNEL Sur San Sebastian de Los Reyes Spain	Feasibility study			2007
211	Interceptor Belgrad Slovenien	Niemeyer Baustoffmaschinen GmbH 8010 Graz, Austria	Feasibility study			2007
210	Rückbau SMDK Kölliken Switzerland	Arge Phoenix 8023 Zürich, Switzerland	Containe gate			2007
209	Bodio / Faido Switzerland	Consorzio TAT 6742 Pollegio, Switzerland	Ring position erector			2007
208	Schutterstollen Diabas Austria	BMTI GmbH 9800 Spittal / Drau Austria	Adjusment back-up system			2007
207	Ceneri Switzerland	CMC, Consorzio Monte Ceneri 6901 Lugano Switzerland	1 back-up-system	9,7	2'321	2007
206	Moskouw Russia	LOVAT Toronto, Ontario Canada	1 back-up-system			2007
205	Siah Bishe	Jäger Bau GmbH 6780 Schruns Austria	Feasibility study			2006
204	Parbati III India	National Hydroelectric Power Corporation Ltd India	Feasibility study			2006
203	Limberg II Umbau Ermenek Austria	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz	Adjusment back-up system			2006
202	Rio Tinto Canada	Rio Tinto Technical Services Limited Vancouver, Canada	Feasibility study			2006
201	Bodio / Faido Switzerland	Consorzio TAT 6742 Pollegio Switzerland	Reconstruction / adjustment L1-area			2006
200	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	RoCon Shuttle			2006
199	Abdalajis Spain	Sacyr SAU 28050 Madrid, Spain	Study for optimising			2006
198	Sedrun Switzerland	SikaBau AG 8048 Zürich, Switzerland	Foil-placing machine for base	5,8		2006

Ref.	Site	Client	Order	Ø m	Length m	Year
197	PSW Limberg II Austria	G. Hinteregger Söhne 5020 Salzburg, Austria	Ramp for in clined shaft			2006
196	Bodio / Faido Switzerland	Consorzio TAT 6742 Pollegio, Switzerland	Reprofil Installation			2006
195	San Pedro Spain	UTE San Pedro 28050 Madrid, Spain	Ventilation installation			2006
194	Perschling Austria	Strabag AG 1220 Vienna, Austria	Foil-placing machine for base			2006
193	San Pedro Spain	OHL 28050 Madrid, Spain	Ventilation installation			2006
192	Vancouver Canada	Bilfinger & Berger GmbH 65189 Wiesbaden, Germany	Consolidation sledge with inter conveyor belt	3,8		2006
191	Amsteg Switzerland	Guniperm-Bauveg AG 6532 Castione Switzerland	Foil-placing machine for base	9,5	11'350	2006
190	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	test installation			2006
189	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	RoCon Shuttle 0			2006
188	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study			2006
187	Kölliken Switzerland	Batigroup AG 8050 Zürich Switzerland	Feasibility study			2006
186	Bahntechnik Gotthard Switzerland	Transtec Atel Installationen 8026 Zürich Switzerland	Feasibility study Traintechnic			2005
185	Jing Ping China	Ertan Hydropower Development Company Ltd Chengdue 61051, China	Feasibility study for heading by tunnel boring machine	13	2 x 12'000	2005
184	ZALA Langenthal Switzerland	Rothpletz + Lienhard + Cie 5000 Aarau Switzerland	Crane installation		2'000	2005
183	Muegg Hotair Germany	MUEG GmbH 06242 Braunsbedra Germany	Foil-placing machine for base		2'000	2005
182	Sir Adam Beck Ontario	Strabag AG 1220 Vienna Austria	1 back-up-system	14,4	10'398	2005
181	Amsteg Switzerland	Murer AG / Strabag AG 8472 Erstfeld Switzerland	Ventilation installation			2005
180	M 30 Spain	Fuelguera Construction Mecaincas SA Spain	1 Quick unloding system			2005
179	Saas Switzerland	Arge ATUS, Saas 7001 Chur Switzerland	1 back-up-system	4,5	1'954	2005
178	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	2 Conveyor belt installations		4'950	2005

Ref.	Site	Client	Order	Ø m	Length m	Year
177	Uetliberg Switzerland	Arge Uetli 8143 Stallikon Switzerland	Installation for Swellex- anchoring	14,4	2 x 4'400	2005
176	Katzenberg Switzerland	ARGE Katzenberg 79588 Efringen-Kirchen Germany	Invert concrete installation			2005
175	Wienerwald Austria	Arge Wienerwald 2111 Leobendorf Austria	4 sluggish soft			2005
174	Wienerwald Austria	Arge Wienerwald 2111 Leobendorf Austria	Transportation tank			2005
173	Bannalp Switzerland	Murer-Strabag AG 8472 Erstfeld Switzerland	Incline shaft	3	1'000	2005
172	Wasserversorgung ZH Switzerland	Arge LFMoos 8038 Zürich Switzerland	Installation for shaft- transport	3,3	6'891	2005
171	Castellanza Italy	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Addition to existing back-up system (CTRL)		2'200	2005
170	Sedrun Switzerland	Arge Transco 7188 Sedrun Switzerland	2 high performance systems for drill and blast advance			2004
169	Wienerwald Austria	Herrenknecht AG 77963 Schwanau Germany	2 back-up systems for heading with lining segments	10,7	2 x 10'900	2004
168	M 30 Spain	Herrenknecht AG 77963 Schwanau Germany	Stepper, segment feeder, lining segment transloading crane			2004
167	Bodio / Faido	Consorzio TAT 6742 Pollegio Switzerland	Reconstruction / adjustment L1-area			2004
166	San-Francisco Equador	Sika Switzerland AG 8967 Widen Switzerland	1 Shotcrete robot			2004
165	Bodio / Faido	Consorzio AG SikaBau AG / Tecton AG Switzerland	Foil-placing machine for base VI			2004
164	Bodio / Faido	Consorzio AG SikaBau AG / Tecton AG Switzerland	Foil-placing machine for cross-cut			2004
163	Eichelberg Tunnel Thüringerwald, Germany	MUEG GmbH 06242 Braunsbedra Germany	Foil-placing machine for base		4'500	2004
162	Uetliberg Switzerland	ARGE Uetliberg 8143 Stallikon Switzerland	Crusher installation	14,4	2 x 4'400	2004
161	Monte Giglio Italy	Seli S.p.A. 00144 Rom, Italy	Climber 3	4,5	9'600	2004
160	Amsteg Switzerland	Murer AG / Strabag AG 8472 Erstfeld Switzerland	Cross-cut installation D&B			2004
159	Paierdorf Austria	Jäger Bau GmbH 6780 Schruns, Austria	Vertical-Shaft 120m	10		2004
158	Liaoning China	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	1 back-up-system	8,03	8'365	2004

Ref.	Site	Client	Order	Ø m	Length m	Year
157	Parbati India	Jäger Bau GmbH 6780 Schruns, Austria	Ramp for in clined shaft 58%	4,88		2003
156	Gotschna	ARGE Sicherheitsstollen Gotschna, Serneus Switzerland	Study	4,5	4'046	2003
155	Bodio	SikaBau AG 8048 Zürich, Switzerland	Foil-placing machine for base	8,8		2003
154	Uetliberg	SikaBau AG 8048 Zürich, Switzerland	Foil-placing machine for base	14,4	2 x 4'400	2003
153	Uetliberg	SikaBau AG 8048 Zürich, Switzerland	Shaft basket	7	60	2003
152	Bodio / Faido	SikaBau AG 8048 Zürich, Switzerland	4 Foil-placing machines	8,8	32'000	2003 / 2004
151	Sedrun	Arge Transco 7188 Sedrun, Switzerland	4 Heading installations Drill and blast		4'700	2003
150	Monte Giglio Italy	Seli S.P.A. 00144 Rom, Italy	Additional climber	4,5	9'600	2003
149	Premadio, Italy	Quadrio Curzio S.p.a. 20124 Milano, Italy	Addition to back-up installation	4,1	4'000	2003
148	Ermenek, Turkey	Universale Bau, Wien Alpine Mayreder, Salzburg Austria	2 Lining segment cars	6,6	8'100	2003
147	Amsteg	Murer AG / Strabag AG 8472 Erstfeld Switzerland	Monorail, Side crane and Enlargement back-up installation	9,5	11'350	2002
146	Concise (CH)	SikaBau AG 8048 Zürich Switzerland	Foil pressure installation IV			2002
145	Ermenek, Turkey	Universale Bau, Wien Alpine Mayreder, Salzburg Austria	1 back-up-system	6,6	8'100	2002
144	Grimsel	INFRA 2000 2074 Marin, Switzerland	Adjustment back-up-system Bodio and additional supply	4,3	N 6'500 S 3'500	2002
143	Sedrun	Arge Transco 7188 Sedrun, Switzerland	3 Rotary tippler			2002
142	CTRL	Costain Skanska Bachy Joint Venture, London Great Britain	Segment tippler			2002
141	Uetliberg	ARGE Uetliberg 8143 Stallikon Switzerland	special machines to existing back-up system	14,4	2 x 4'400	2002
140	Amsteg	Murer AG / Strabag AG 8472 Erstfeld Switzerland	2 back-up systems	9,5	2 x 11'350	2002
139	Hafnerberg, Zurich	SikaBau AG 8048 Zurich Switzerland	Foil pressure installation III			2002
138	Kaprun inclined shaft Östu / Stettin, Austria	Arge Kraftabsteig Kaprun Östu / Stettin, Austria	sanitation back-up-system	3,3		2001

Ref.	Site	Client	Order	Ø m	Length m	Year
137	Guadarrama tunnel Madrid, Spanien	Wirth Maschinen- und Bohrgeräte-Fabrik GmbH 41812 Erkelenz, Germany	2 back-up systems for heading with lining segments	8,5	2 x 14'000	2002
136	Base tunnel Ferden Switzerland	ARGE Ferden 3915 Goppenstein Switzerland	2 Broyt excavator			2001
135	Channel Tunnel Rail Link Lot 240 Great Britain	Wirth Maschinen- und Bohrgeräte-Fabrik GmbH 41812 Erkelenz, Germany	2 Back-up systems	8,165	2 x 7'570	2002
134	Monte Giglio Tunnel Italy	Consorzio Galleria Cantiere Monte Giglio 24033 Calusco d'Adda, Italy	Supply train for angles of gradient higher than 20%	4,5	9'600	2001
133	Monte Giglio Tunnel Italy	Consorzio Galleria Cantiere Monte Giglio 24033 Calusco d'Adda, Italy	Adjustment of back-up system	4,5	9'600	2001
132	Hubertus Tunnel The Netherlands	IHC Tunnelling systems BV 2960 Kinderdijk Netherlands	Design of erector/derector			2001
131	Westerschelde The Netherlands	Kombinatie Middelpaalt Westerschelde 4530 Terneuzen Netherlands	Monorail overhead crane			2001
130	Atlas Copco Rock Drills AB Sweden	Atlas Copco Rock Drills AB 70114 Örebro Växel Sweden	Screenhandler			2001
129	Raron Tunnel Switzerland	ARGE MaTrans Steg / Raron 3942 Raron Switzerland	Heading installation Drill and blast		4'600	2001
128	Flüelen By-pass tunnel Switzerland	Prader Bauunternehmung AG 8001 Zurich Switzerland	Lining segment transloading crane			2001
127	Girsberg Tunnel Switzerland	Sika SikaBau AG 8048 Zurich Switzerland	Foil pressure installation II			2001
126	Girsberg Tunnel Switzerland	Sika SikaBau AG 8048 Zurich Switzerland	Foil transference installation			2001
125	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Additional study, storage of radioactive waste			2000
124	Bodio By-pass tunnel Los 552 Switzerland	Batigroup 8303 Bassersdorf Switzerland	Broyt excavator			2000
123	Bodio By-pass tunnel Los 552 Switzerland	Batigroup 8303 Bassersdorf Switzerland	Supply and ventilation installation			2000
122	Base tunnel Mitholz Los 45.3 Switzerland	Satco Lötschberg 3717 Blausee-Mitholz Switzerland	2 Conveyer belt installations		18'000	2000
121	Base tunnel Mitholz Los 45.3 Switzerland	Satco Lötschberg 3717 Blausee-Mitholz Switzerland	3 heading installations		7'400 8'600	2000
120	Flims By-pass tunnel Los 2 Switzerland	Zschokke Graubünden AG 7004 Chur Switzerland	Back-up system	65 m ²	2'805	2000
119	SikaBau Switzerland	Sika SikaBau AG 8048 Zurich Switzerland	Foil pressure installation I			2000
118	Bodio Muck gallery Switzerland	ARGE LGV / Infra 2000 / Pagani 6743 Bodio Switzerland	Back-up system	5,08	3'300	2000

Ref.	Site	Client	Order	Ø m	Length m	Year
117	Westerschelde Highway tunnel Netherlands	KMW Westerschelde 4530 AH Terneuzen Netherlands	Monorail	11,24	2 x 6'598	1999
116	Niagra Falls	Herrenknecht AG 77963 Schwanau Germany	Practicability study Supply logistic			1999
115	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study II			1999
114	La Réunion-2 Water tunnel La Réunion / F	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	3,8	9'500	1999
113	San Bernardino Highway tunnel Switzerland	ASB ARGE San Bernardino 7438 Hinterrhein Switzerland	Transloading crane		6'400	1999
112	Maadi Rock Waste water tunnel Cairo / Egypt	Ed. Züblin AG 70567 Stuttgart Germany	Addition to existing back-up system (ASG)	4,8	3'400	1998
111	CERN France	Prader Bauunternehmung AG 8001 Zurich Switzerland	Back-up system Conveyor	3,60	2'300	1998
110	NAGRA Switzerland	NAGRA 5430 Wettingen Switzerland	Feasibility study I			1998
109	AZT 2.01 Zürich Rail tunnel Switzerland	Prader Bauunternehmung AG 8001 Zurich Switzerland	Lining segment magazine			1998
108	Girsberg Tunnel Switzerland	Rothpletz + Lienhard + Cie 5000 Aarau Switzerland	Conveyor	4	1'105	1998
107	Visnove	Porr International AG 1031 Vienna Austria	Addition to existing back-up system (Inanda Wiggins)	3,5	5'600	1998
106	La Réunion-1 Water tunnel La Réunion / F	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	3,80	9'500	1998
105	Mohale Water tunnel South Africa	Hochtief AG 45128 Essen Germany	Addition to existing back-up system (Ash Caledon)	5,30	15'000	1998
104	Sophia Rail tunnel Netherlands	Herrenknecht GmbH 77963 Schwanau Germany	Basic Engineering	9.8	4'200	1998
103	Gorgier Highway tunnel Switzerland	Groupement Tunnel de Gorgier 2022 Bevaix Switzerland	Overhead travelling crane	11,6		1998
102	San Bernardino Highway tunnel Switzerland	Zschokke Locher AG 6312 Steinhausen Switzerland	Renovation highway tunnel		6'400	1998
101	Westerschelde Highway tunnel Netherlands	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	11,24	6'600	1998
100	Paracuellos Railway tunnel Spain	Murer Bauunternehmung 6472 Erstfeld Switzerland	Back-up system	12,46	4'650	1998
99	Acheloos Water tunnel Greece	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Revision back-up system (Dixence)	7,10	14'000	1997
98	Maen Cable car Italy	Quadrio Curzio S.p.a. 20124 Milano Italy	Incline shaft	4,2	1'750	1997

Ref.	Site	Client	Order	Ø m	Length m	Year
97	Cogolo Incline shaft Italy	Quadrio Curzio S.p.a. 20124 Milano Italy	Renovation incline shaft	3,9	700	1997
96	Manapouri 2 Hydro power station New Zealand	Fletcher + Dillingham + Ilbau Te Anau New Zealand	Back-up system	10,05	9'700	1997
95	Nürnberg Metro Germany	Dyckerhoff + Widmann 81902 Munich Germany	Conveyor		1'610	1997
94	Sauges Highway tunnel A5 Switzerland	Murer Bauunternehmung 6472 Erstfeld Switzerland	Back-up system Suspension platform	11,2	2 x 1'700	1997
93	Qin Ling Railway tunnel China	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Rotary tippler	8,8	19'000	1996
92	Qin Ling Railway tunnel China	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Back-up system	8,8	19'000	1996
91	Elbtunnel Hamburg 4th tube Germany	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system Stepper	14,2	3'100	1996
90	Kuhrang Water tunnel Iran	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	4,6	9'000	1996
89	Bruyères Highway tunnel / N1 Switzerland	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	11,77	1'000	1996
88	Casecnan Water tunnel Philippines	HanBo Eng. & Constr. Co. Ltd. Seoul / Korea	Back-up system	6,5	13'000	1996
87	Mölltaler Glacier funicular Metro Alpine Austria	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system Incline shaft	4,5	4'800	1995
86	Connecting tunnel Glatt Diswatering tunnel Switzerland	Prader Bauunternehmung AG 8001 Zurich Switzerland	Back-up system Conveyor	4,5	5'300	1995
86	Connecting tunnel Glatt Diswatering tunnel Switzerland	Prader Bauunternehmung AG 8001 Zurich Switzerland	Back-up system Conveyor	4,5	5'300	1995
85	Vereina North section L3 Railway tunnel Switzerland	ARGE Vereinatunnel Nord (T4) c/o Staug Tunnel AG 8303 Bassersdorf, Switzerland	Vault Timbering and walling	7,69		1995
84	Adlertunnel - Rail 2000 Railway tunnel Switzerland	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	12,25		1994
83	Tunnels de Pomy Highway tunnel N1 Switzerland	Consortium Tunnels de Pomy c/o Marti Tunnelbau AG 3000 Bern 5, Switzerland	Revision back-up system	11,6		1994
82	Amsteg Power station Switzerland	ARGE Druckstollen Amsteg ADA 6474 Amsteg, Switzerland	Rotary tippler 2x12m ³ open	5	7'285	1994
81	Amsteg Power station Switzerland	ARGE Druckstollen Amsteg ADA 6474 Amsteg, Switzerland	Back-up system	5	7'285	1994
80	Remsach Power station Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Rotary tippler 2x5m ³ open	3,2		1994
79	Remsach Power station Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Back-up system	3,2		1994

Ref.	Site	Client	Order	Ø m	Length m	Year
78	Piora-Mulde Exploratory gallery NEAT Switzerland	Murer AG 6472 Erstfeld Switzerland	Addition to existing back-up system	5		1993
77	Vereina south, Lot T5 Railway tunnel Switzerland	Arge Vereinatunnel Süd (T5) 7543 Lavon Switzerland	Back-up system Suspension platform			1993
76	Les Vignes Highway tunnel Switzerland	Entreprises Tunnel Les Vignes ETV 1796 Courgevax Switzerland	Back-up system	11,77		1993
75	Cleuson Dixence - Los B Power station Switzerland	ARGE Murer – Züblin CSC c/o Murer S.A. 1212 Grand-Lancy, Switzerland	Rotary tippler 2x12m ³ open	5,6		1993
74	Cleuson Dixence - Los B Power station Switzerland	ARGE Murer - Züblin CSC c/o Murer S.A. 1212 Grand-Lancy, Switzerland	Back-up system	5,6		1993
73	Vereina Nord - Los T4 Railway tunnel Switzerland	ARGE Vereinatunnel Nord (T4) c/o Stuaag Tunnel AG 8303 Bassersdorf, Switzerland	Back-up system	7,69		1992
72	Fereggiano Drainage gallery Genova / Italy	Ilbau GmbH 9800 Spittal / Drau Austria	Engineering Back-up system	6		1992
71	Ash / Caledon Highlands Water Project Kingdom of Lesotho / Switzerland	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	3 Rotary tippler 2x12m ³ open	5,40 4,60		1991
70	Ash / Caledon Highlands Water Project Kingdom of Switzerland	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Back-up system	5,40 4,60		1991
69	Riva del Garda Incline shaft Italy	Murer Italia S.r.l 22036 Erba Italy	Anti slip back system Start ramp	3,7		1991
68	Capo Sele Conza Water project Naples / Italy	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system	4,5		1991
67	Aosta Motorway tunnel Italy	Murer AG 6472 Erstfeld Switzerland	Back-up system	11,4		1991
66	Locarno Motorway by-pass Switzerland	Murer AG / Kopp AG 6472 Erstfeld Switzerland	Back-up system	11,4		1990
65	Innanda Wiggins Umgeni Water tunnel Southafrica	Porr International AG 1031 Vienna Austria	Rotary tippler 2x5m ³ open	3,5		1990
64	Innanda Wiggins Umgeni Water tunnel Southafrica	Porr International AG 1031 Vienna Austria	Back-up system	3,5		1990
63	Dhiarizos Diversion Transfer tunnel Cyprus	Atlas Copco MCT AG Mechanical Rock Excavation 1048 Stockholm, Sweden	Revision Back-up system (Ilanz Panix)	3,2		1990
62	Mont Russelin Road tunnel Switzerland	Entreprise Tunnel du Mont Russelin 2556 Boécourt Switzerland	Revision Back-up system	11,74		1990
61	Lorena Pressure gallery Austria	MTA Ing. K. Jäger 6780 Schruns Austria	Modification Back-up system (Amlach)	4,75		1989
60	Tignes Incline shaft France	Hochtief AG 45128 Essen Germany	Modification Back-up system (Val d'Isère)	4,3		1989
59	Murten Exploratory gallery S'59 Switzerland	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	2,9		1989

Ref.	Site	Client	Order	Ø m	Length m	Year
58	Bözberg Motorway tunnel Switzerland	ARGE Bözbergtunnel 5107 Schinznach-Dorf Switzerland	Back-up system	11,87		1989
57	Paris S'54 Waste water tunnel France	Herrenknecht GmbH 77963 Schwanau Germany	Back-up system	3,25		1989
56	Piedimonte Water tunnel Sicilia / Italy	Baumaschinen-Leasing GmbH + Co. KG 9800 Spittal / Drau, Austria	Back-up system	5,9		1989
55	Hintermuhr Incline shaft Austria	Contractor Group KW Hintermuhr 5020 Salzburg, Austria	Back-up system Incline shaft	3,2		1989
54	Heinfels Pressure gallery Austria	ARGE Stollen Heinfels 1010 Vienna Austria	Rotary tippler 2 x 5 m³ open	3,2		1988
53	Heinfels Pressure gallery Austria	ARGE Stollen Heinfels 1010 Vienna Austria	Back-up system	3,2		1988
52	Dhiarizos Diversion Transfer tunnel Cyprus	ARGE Grauholztunnel 3323 Bärswil Switzerland	Back-up system	11,6		1988
51	Irganaisk Hydro power station Russia	The Robbins Company Ltd. Germany GmbH 44309 Dortmund, Germany	Back-up system	8,5		1988
50	Domodossola Transfer tunnel Italy	Baumaschinen-Leasing GmbH + Co. KG 9800 Spittal / Drau, Austria	Rotary tippler	3,5		1988
49	Domodossola Transfer tunnel Italy	Baumaschinen-Leasing GmbH + Co. KG 9800 Spittal / Drau, Austria	Back-up system	3,5		1988
48	Koralpe Water transfer tunnel Austria	Ed. Ast. + Co. 8010 Graz Austria	Rotary tippler 2 x 5 m³ open	3,5		1988
47	Koralpe Water transfer tunnel Austria	Ed. Ast. + Co. 8010 Graz Austria	Back-up system	3,5		1988
46	Channel Land Running Tunnel Channel, Great Britain	James Howden + Cie. Ltd. Glasgow Great Britain	Back-up system	8,72		1988
45	Arthurwerk Transfer tunnel Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Rotary tippler 2 x 5 m³ open	3,15		1988
44	Arthurwerk Transfer tunnel Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Back-up system	3,15		1988
43	Uttendorf Transfer tunnel Austria	Baumaschinen-Leasing GmbH + Co. KG 9800 Spittal / Drau, Austria	Rotary tippler 2 x 5 m³ open	3,5		1987
42	Uttendorf Transfer tunnel Austria	Baumaschinen-Leasing GmbH + Co. KG 9800 Spittal / Drau, Austria	Back-up system	3,5		1987
41	Imperia Pilot tunnel Italy	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system	3,5		1987
40	Channel Marine Service Tunnel Channel tunnel Great Britain	James Howden + Cie. Ltd. Glasgow Great Britain	Back-up system	5,38		1986
39	Metro Essen Lot 32 + 33 Germany	Stadt Essen Bauamt Germany	Back-up system	7,12		1986

Ref.	Site	Client	Order	Ø m	Length m	Year
38	Freudenstein / Los 1 Exploratory gallery Germany	Hochtief AG 45128 Essen Germany	Back-up system	5,64		1986
37	Val d'isère Incline shaft France	Hochtief AG 45128 Essen Germany	Back-up system Incline shaft	4,2		1986
36	Paute C Hydro Power Station Ecuador / South America	S.E.L.I. Panama S.A. 20122 Mailano Italy	Back-up system	7,8		1985
35	Reutte Pressure gallery Austria	Ed. Züblin AG 70567 Stuttgart Germany	Back-up system	4,2		1985
34	Panix Pressure gallery Switzerland	A. Pitsch AG 7500 St. Moritz Switzerland	Rotary tippler 2 x 5 m ³ open	3,07		1985
33	Panix Pressure gallery Switzerland	A. Pitsch AG 7500 St. Moritz Switzerland	Back-up system	3,07		1985
32	Strada Pressure gallery Ilanz / Switzerland	Rothpletz + Lienhard + Cie 5000 Aarau Switzerland	Back-up system	5,2		1985
31	Aten Roadway tunnel Switzerland	Association Tunnel Est 2000 Neuchâtel Switzerland	Back-up system	11,3		1985
30	Canaltal Pilot tunnel Austria	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system	3,5		1985
29	Amlach / Los 5 Pressue gallery Austria	Contractor Group Porr / Hinteregger / Stuag 1010 Vienna, Austria	Rotary tippler 2 x 8 m ³ closed	3,2		1985
28	Amlach / Los 5 Pressue gallery Austria	Contractor Group Porr / Hinteregger / Stuag 1010 Vienna, Austria	Back-up system	3,2		1985
27	Lugano Cable tunnel Switzerland	Prader Bauunternehmung AG 8001 Zurich Switzerland	Back-up system	3,5		1985
26	CERN / Eurolep Los 3 Genf / Switzerland	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Back-up system	4,5		1985
25	San Remo Exploratory gallery Italy	Ilbau GmbH 9800 Spittal / Drau Austria	Rotary tippler 2 x 5 m ³ closed	3,5		1985
24	San Remo Exploratory gallery Italy	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system	3,5		1985
23	Freudenstein / Los 2 Exploratory gallery Germany	Hochtief AG 45128 Essen Germany	Back-up system	5,2		1984
22	Association du Naut d'Avanchet ANA Waste water tunnel Switzerland	Association du Naut 1212 Grand-Lancy Switzerland	Back-up system	4,5		1984
21	Amlach / Los 3 Transfer tunnel Austria	ARGE Griesbach Universale + Jäger 1010 Vienna, Austria	Back-up system	3,9		1984
20	CERN / Eurolep Los 1 + 2 Geneva / Switzerland	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Back-up system	3,9		1984
19	Makkah Taif Water project Saudi Arabia	ARGE T.M.T. Kunz GmbH + Co. 80336 Munich, Germany	Back-up system	5,64		1983

Ref.	Site	Client	Order	Ø m	Length m	Year
18	Lysebotn Pressure gallery Norway	Astrup + Aubert Oslo 6 Norway	Back-up system	3,2		1983
17	BAM / Sibiria Exploratory gallery Russia	Wirth Maschinen- und Bohrgeräte- Fabrik GmbH 41812 Erkelenz, Germany	Back-up system	4,6		1982
16	Mosvik Transfer tunnel Norwegen	A / F Hoyer / Ellefsen / Murer Oslo 2 Norway	Back-up system	3,5		1982
15	Tarvisio Pilot tunnel Friaul / Italien	Murer AG 6472 Erstfeld Switzerland	Back-up system	3,6		1982
14	Pitztaler Gletscherbahn Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Back-up system	4,1		1981
13	Estantento Pressure gallery Spain	A. Kunz GmbH + Co. 80336 Munich Germany	Back-up system	4,2		1981
12	Wöllastollen Transfer tunnel Kärnten / Austria	Ilbau GmbH 9800 Spittal / Drau Austria	Rotary tippler 2 x 5 m ³ closed	3,5		1981
11	Wöllastollen Transfer tunnel Kärnten / Austria	Ilbau GmbH 9800 Spittal / Drau Austria	Back-up system	3,5		1981
10	Hintermuhr Transfer tunnel Muhrtal / Austria	ARGE Ast / Jäger 8010 Graz Austria	Rotary tippler 2 x 5 m ³ closed	3,2		1981
9	Hintermuhr Transfer tunnel Muhrtal / Austria	ARGE Ast / Jäger 8010 Graz Austria	Back-up system	3,2		1981
8	Walgaustollen / Los Bürs Transfer tunnel Austria	ARGE Jäger / Kunz / Universale 6900 Bregenz Austria	Back-up system	6,25		1980
7	Walgaustollen / Los Beschling Hydro power station Austria	ARGE Hinteregger / Porr / Stuag 6900 Bregenz Austria	Back-up system	6,25		1980
6	Kerenzertunnel / Los Gäsi Motorway tunnel Switzerland	ARGE Murer / Kopp / Bertschinger 8872 Weesen Switzerland	Back-up system	11		1980
5	Gubrist Motorway tunnel Switzerland	ARGE Locher / Prader 8000 Zurich Switzerland	Back-up system	11,5		1980
4	Rwanda Connecting tunnel Africa	G. Hinteregger + Söhne 5021 Salzburg Austria	Back-up system	3,05		1979
3	Häusling Pressure gallery Mayrhofen / Austria	Ed. Züblin AG 70567 Stuttgart Germany	Back-up system	4,2		1979
2	Tunjita Valle Preassure gallery Kolumbia / South Amerika	S.E.L.I. Panama S.A. 20122 Mailano Italy	Back-up system	4,3		1978
1	Sölk Steiermark Preassure gallery Austria	G. Hinteregger + Söhne 5021 Salzburg Austria	Back-up system	3,55		1978