

Reference List Tunnel Fans



Tunnel Construction Ventilation Systems



Tunnel Construction Ventilation Systems		
Site	Fans	Year
Grenoble France	1 off AJ 1000 22 kW with frequency converter V400/50/3	2017
La Coche France	1 off AXC 800 45 kW with frequency converter V400/50/3	2017
PRA France	1 off AJ 630 11 kW with frequency converter V400/50/3	2017
Monte Ceneri Switzerland	4 off AJR 1600 90 kW F250 4 off AJR 1250 55 kW F250	2017
Tratta Lingotto-Bengasi Turin Metro Italy	1 off AXC 1120 2X45 kW with frequency converter V400/50/3	2017
Angat Project Philippines	Equipment for TBM back-up Deduster fan 1 off AXC 630 2X18 kW ATEX, V460/60/3 Fan air cleaning 1 off AXC630 4X22 kW, V460/60/3 1 off Deduster DS-MC4 4 m ³ /s WxHxL 951x2200x5817 mm	2017
Santa Lucia Tunnel Variante di Valico Autostrada A1 Italy	1 off Chiller Sysscroll 660 with heat exchanger M15-MFM 51 with cooling tower PME4804E SV	2017
Atlanta USA	Equipment for TBM back-up 1 off Deduster DS2.5-C 2.5 m ³ /s WxHxL 1200x2300x6000 mm 1 off centrifugal fan 22 kW UL listed V460/60/3	2017
FR1 France	1 off AJ 1000 18.5 kW with frequency converter V400/50/3	2016
Grater Beirut Water Supply Project Tunnel & Transfer Line Lebanon	2 off AXC 800 4X50 kW with frequency converter V400/50/3 3 off AXC 800 4X45 kW with frequency converter V400/50/3	2016
Doha Metro Red, Green, Gold Lines Qatar	180 off AJ560 F300, 11 kW, V400/50/3 with ancillaries Supply fans 44 off AXC1250 V400/50/3 Exhaust fans 44 off AXC1250 V400/50/3	2016
Follo Railway Line Sky-Oslo Norway	1 off AXC 1600 2x132 kW with frequency converters V400/50/3	2016
Turin-Lyon Railway Tunnel Saint Martin la Porte France	1 off Chiller Sysscroll 590 air air type cooling capacity 780 kW 1 off Cooling Tower PME 5704	2016
Florence Junction Forest Shaft Italy	1 off AXC 900 11 kW with frequency converters V400/50/3 1 off AXC 900 15 kW with frequency converters V400/50/3	2016

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3rd Pass Railway Milan-Genoa Main Tunnel Room Italy	2 off AXC 1800 2x132 kW with frequency converters V400/50/3	2016
Brenner Basic Tunnel (BBT) Isarco Underpass Italy	3 off AXC 1600 132 kW with frequency converters V400/50/3 1 off AXC 1600 110kW with frequency converters V400/50/3	2016
Visnove Road Tunnel Czech Republic	1 off AXC 1600 2x250 kW with frequency converters V400/50/3	2016
Pavoncelli Bis Project Hydraulic Tunnel Lake Valley Italy	AXC 800 2x22 kW with frequency converters V400/50/3	2016
3rd Pass Railway Milan-Genoa Radimero Shaft Italy	1 off AXC 1600 2x132 kW with frequency converters V400/50/3	2016
Riachuelo Project Hydraulic Tunnel Buenos Aires Argentina	1 off AXC 800 4x50 kW with frequency converters V400/50/3	2016
Main Contractor Norway	2 off temporary ventilation AJ 1000 27 kW, V 400/50/3 SS1.14404	2016
Ryfast Road Tunnel System Ryfylke Tunnel (2X14.2 km)	2 off temporary ventilation AXR 1000 30 kW, V 400/50/3	2016
Main contractor Norway	4 off temporary ventilation AXR 1000 30 kW, V 400/50/3	2016
Main Contractor Norway	2 off temporary ventilation AJ 1000 30 kW, V400/50/3 inside a 10 feet containers	2016
Farriseidet Porsgrunn UFP 39 Railway Tunnel (22.5 km) Norway	3 off temporary ventilation AJ 1000 27 kW, V 400/50/3 SS1.4404	2016
Bjornegard Tunnel (2300 m) Norway	2 off Container Ventilation Units Containing 1 off AJ 1000 30 kW, 1 off Perkins power generator 80 kVA V400/50/3, silencers and various ancillaries	2015
Albula Tunnel Switzerland	2 off Deduster DS10-C with AXC 800 2x30 kW with frequency converters V400/50/3	2015
Vishnugad Pipalkoti.E India	1 off AXC 1600 2x160 kW with frequency converters V400/50/3	2015
RV 4 Gran Tunnel Norway	2 off AJ 1000 30 kW hot galvanizing 900 N V400/50/3 Including 1 off Perkins 80 kVA Generator 1 off 10 feet container, silencers and other ancillaries	2015

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Doha Metro Project Green Line Qatar	4 off AXC 800 30 kW suitable for frequency converters V400/50/3 2 off Chillers SQWQL802E039/15 water water type cooling capacity 230 kW	2015
Doha Metro Project Golden Line Qatar	6 off AXC 1120 2x45 kW equirotating suitable for frequency converters V400/50/3 2 off AXC 1000 22 kW Suitable for frequency converters V400/50/3	2015
Follo Railway Line Sky- Oslo Norway	3 off AXC 1600 2x90 kW with frequency converters V400/50/3	2015
Nodo di Firenze Railway Italy	1 off AXC 1250 2x75 kW with frequency converters V400/50/3	2015
Brenner Basic Tunnel (BBT) North Line Tunnel TBM Room Mules Italy	4 off AXC 1600 2x160 kW with frequency converters V400/50/3	2015
Motorway D1 Lucka Visnove – Dubna Skala Visnove Tunnel Slovakia	4 off AXC 1600 2x250 kW with frequency converters V400/50/3	2015
Salt Mine New Mexico (USA)	2 off Deduster DS24-C with AXC 1120 2x44 kW with frequency converters V460/60/3	2015
Doha Metro Project Cross Pass Golden Line Qatar	2 off AXC 1000 22 kW, V400/50/3 with frequency converters	2015
Motorway A3 Salerno-Reggio Calabria Laria Tunnel	2 off AXC 1800 110 kW, V400/50/3 with frequency converters	2015
Storberget Norway	2 off Aj 1000 30kW complete with an- cillaries installed in 10 feet Container with Perkins 80KWA power generator	2015
Holm - Nykirke Vestfoldbanen Norway	4 off AXC 1250 30kW, V400/50/3 complete with ancillaries	2014
UFP1 Farriseidet - Porsgrunn Norway	4 off Aj 1000 27kW complete with ancillaries	2014
Lercara Tunnel Sicily - Italy	1 off AXC 1600 2x90kW, V400/50/3 with frequency converters	2014
Motorway A3 Salerno – Reggio Calabria Campotenese Tunnel	4 off AXC 1600 90kW, V400/50/3 with frequency converters	2014

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Cefalù Tunnel railway Messina-Palermo Sicily - Italy	1 off 160KG2/71/4/16 - 2x200kW, V400/50/3 with frequency converters	2014
Doha Metro Project Project Gold Line Qatar	6 off AXC 1120 2x45kW, V400/50/3 with frequency converters	2014
Riyadh Metro project Riyadh Saudi Arabia	1 off AXC 1250 2x90kW, V460/60/3 with frequency converters	2014
Riyadh Metro project Riyadh Saudi Arabia	1 off cooling ventilation unit NAX VA 1000 S cool container Cooling capacity 980kW – R134a V460/60/3 1 off AXC 1250 2x90kW, V460/60/3 with frequency converters	2014
Xepian Xenamnoy Hydropower project Laos	1 off AXC 1600 4x132kW, V400/50/3 with frequency converters	2014
Ventilasjonsvifter project Norway	2 off AXC 1600 2x160kW, V400/50/3 with frequency converters	2014
Ventilasjonsvifter project Norway	2 off AXC 1600 2x160kW, V400/50/3 with frequency converters	2014
Pavoncelli Bis Project Hydraulic Tunnel Italy	Equipment for TBM back-up 1 off AXC EX-250 EX I M2 ATEX – 2x4kW, V400/50/3	2014
TRASPORTABLE JET FAN Tunnel Refurbishing Road Tunnel Norway	1 off AXC800 22 kW IE2 motor - V400/50/3	2014
Pavoncelli Bis Project Hydraulic Tunnel Italy	1off Centrifugal Fan SVCM 1251 N8 – 250 kW, V400/50/3	2014
Qingdao Metro Project Metro Tunnel China	Equipment for TBM back-up 2off Deduster DS-R 8 – 8m³/s WxHxL 813 x 2050 x 9690mm V400/50/3 Deduster Fan 2off AXC 800 2x30kW, V400/50/3 Axial Exhaust Fan 2off AXC 710 2x22kW, V400/50/3	2014
Shanxi Metro Project Metro Tunnel China	Equipment for TBM back-up 1off Deduster DS-R 3,3 – 3,3m³/s WxHxL 750 x 1724 x 7816mm V400/50/3 Deduster Fan 1off AXC EX 710 4x15kW - V400/50/3 Clean air fan 1off AXC 710 4x15kW, V400/50/3	2014

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TEEM project – Milan Ring Road Road Tunnel Italy	3 off AXC 1800 110kW, V400/50/3 with frequency converter	2014
Propriano Ring Road - Corsica Road Tunnel France	1 off AXC 1600 200kW, V400/50/3 with frequency converter	2014
Vallemme Milan- Genoa Railway Tunnel Italy	1 off AXC 1600 2x160kW, V400/50/3 with frequency converter	2014
OTTAWA Metro Metro Tunnel Canada	Equipment for Rock-Header Machines. 3off Deduster DS-C 23 – 23 m³/s WxHxL 2130x2496x12606 mm	2014
Milan Underground Extension - Line 1 / Sesto – Monza	1 off AXC 1400 75kW, V400/50/3 with frequency converter	2014
TRASPORTABLE JET FAN Tunnel Refurbishing Road Tunnel Norway	1 off truly reversible AXR2000 200kW, V400/50/3 with frequency converter	2013
ALP TRANSIT GOTTARD Lot 852- Monte Ceneri Acceleration North phase Railway Tunnel Switzerland	1 off AXC 1600 110 kW, V400/50/3 1 off AXC 1600 2x90 kW, V400/50/3 1 off AXC 1250 55 kW, V400/50/3 All the fans with frequency converter	2013
COPENHAGEN METRO Ventilation for TBM back-up Metro Tunnels Denmark	4 off centrifugal fan FG/N 631 -160 - 11-2 / sist 4 RD90 11kW, V400/50/3 with frequency converters 1 off AXC 500 2,2 kW, V400/50/3. with frequency converter 2000 m Easy Joint flexible duct Ø 500mm/ 650 gr/m2- AACL1 60 m Spiral duct Ø 300mm - AACL1	2013
Birkikara-Msida-Gzira-Wiedis-Seweda Tunnels Hydraulic Tunnel Malta	Equipment for Rock-Header Machine 1 off Deduster COMPACT DS2 C-R – 2 m³/s WxHxL 1005x1500x2050 mm 1off AXC 800 2x45kW, V400/50/3. with frequency converters	2013
Minas Project Ecuador Mine Tunnel Ecuador	Equipment for TBM back-up 1 off Deduster DS6-R6 – 6 m³/s WxHxL 850x2027x8394 mm V440/60/3 1 off AXC 710 2x22kW, V440/60/3 1 off AXC 560 2x13,6kW, V440/60/3	2013
Bormio Ring Road SS 38 Road Tunnel Italy	1 off Deduster DS16 – 16 m³/s WxHxL 1768x3390x12622 mm 1 off AXC 800 2x45 kW, V400/50/3	2013

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Motorway A14 Montedomini Tunnel Road Tunnel Italy	2 off AXC 1600-6/24°-4 90 kW, V400/50/3 with frequency converters 2 off AXC 1250 75 kW, V400/50/3 with frequency converters 1 off chiller VLS.804LN 214 kW cooling	2013
STORBERGET Tunnel Road Tunnel Norway	2 off AXC 1600 2x160kW, V400/50/3 with frequency converters and flexible duct Ø 2000 mm	2013
CHUQUICAMATA MINING Mine Chile	4 off AXC 1600 4x160kW, V400/50/3 with frequency converters	2013
Birkikara-Msida-Gzira-Wiedis-Seweda Tunnels Hydraulic Tunnel Malta	1 off Deduster DS4 – 4 m ³ /s dim. WxHxL 1250x2650x4200 mm 1 off AXC 560 2x5,5kW, V400/50/3 with frequency converter 2 off AXC 500 5,5kW, V400/50/3 1 off AXC 400 2,2kW, V400/50/3	2013
COPENHAGEN METRO Metro Tunnels Denmark	4 off AXC 1400 4x75 kW, V400/50/3 with frequency converters	2013
ULU JELAI Hydraulic Tunnel Malaysia	1 off AXC 1600 2x250kW, V400/50/3 with frequency converters	2013
Motorway A1 Val di Sambro Tunnel Road Tunnel Italy	2 off Aj 1000 30 kW, V400/50/3 with frequency converter	2012
Zogno ring road SP ex SS470 Road Tunnel Italy	1 off AXC 1600 2x90 kW, V400/50/3 with frequency converter	2012
Step Project Hydraulic Tunnel Abu Dhabi	2 off AXC 1400 90 kW, V400/50/3 with frequency converter	2012
Motorway A14-Sappanico Tunnel Road Tunnel Italy	1 off AXC 1600 200 kW, V400/50/3 with frequency converter 3 off AXC1600 132 kW, V400/50/3 with frequency converter	2012
BBT Brennero Tunnel Primary air Mules Window Hydraulic Tunnel Hong Kong	1 off AXC 1600 250 kW, V400/50/3 with frequency converter 1 off Deduster DS 8 – 8m ³ /s dim. W x H x L 1250x2100x7450 mm 1 off AXC 800 2x30 kW, V400/50/3 1 off AXC 1120 2x30 kW, V400/50/3 with frequency converter	2012

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Site	Fans	Year
Abu Dhabi	1 off AXC 1600 90 kW, V400/50/3 1 off AXC1400 90 kW, V400/50/3 1 off AXC1400 110 kW, V400/50/3 1 off AXC 800 45 kW, V400/50/3 All the fans with frequency converter	2012
Enel - Lanzada Italy Hydroelectrical power plan	1 off AXC 800 2x30 kW, V400/50/3 with frequency converter	2012
Karakus Hes Project Hydraulic Tunnel Turkey	2 off Deduster DS 2,4 – 2,4m ³ /s dim. WxHxL 603x1644x6186 mm 2 off AXC 560 4x5,5 kW, V400/50/3	2012
Omya Mine - Italy Main ventilation fan	1 off AXC 1800 110 kW, V400/50/3	2012
High voltage cable tunnel Scilla – RC Italy	1 off Deduster DS 5 – 5m ³ /s dim. WxHxL 794x1700x9626 mm 1 off AXC 710 2x22 kW, V400/50/3	2012
Aksijalni Vijenac Road Tunnel Slovenia	2 off AXC 1600 2x90 kW, V400/50/3 with frequency converter Flexible tubes Ø2000/1600mm	2012
ITALFERR - Nodo di Genova Railway Tunnel Tunnels S. Tomaso and Colombo Second Phase Italy	1 of Deduster DS 16-16m ³ /s dim. WxHxL 1768x3390x15741 mm 1 off AXC 800 2x45kW, V400/50/3 with frequency converter	2012
Arcisate - Stabio Railway Tunnels Berera, Induno and GA02 Tunnels Italy	3 off AXC 1600 90 kW, V400/50/3 2 off AXC 1600 55kW, V400/50/3 All fans with frequency converters	2011
A1 - Variante di Valico Bologna - Firenze Road Tunnel Boscaccio Tunnel Italy	1 off AXC 1600 2x110kW, V400/50/3 2 off AXC 1600 90kW, V400/50/3 All fans with frequency converters	2011
S.P. 1 - Passante del Col Cavalier Road Tunnel Italy	1 off Deduster DS 25 - 25 m ³ /s dim. WxHxL 2430x3630x12150 mm 1 off AXC 1250 2x55 kW, V400/50/3 with frequency converter	2011
ITALFERR - Nodo di Genova Railway Tunnel Principe, San Tomaso, Colombo Tunnels First Phase Italy	1 off Deduster DS 16 - 16 m ³ /s dim. WxHxL 1768x3390x12622 mm 1 off AXC 800 2x45 kW, V400/50/3 with frequency converter	2011
Tunnel Rio Pusteria (BZ) Hydraulic tunnel MÜLBACH Italy	1 off AXC 1250 55 kW, V400/50/3 with frequency converter	2011
Pedemontana Lombarda Solbiate Road Tunnels Italy	3 off AXC 1800 110 kW, V400/50/3 with frequency converter	2011

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Site	Fans	Year
Hydraulic tunnel Mezzolombardo (TN) Tunnel Boring Machine [TBM] Italy	1 off Deduster DS 3 - 3m ³ /s dim. WxHxL = 850x1510x3590 mm 1 off AXC 500 2x5,5 kW, V400/50/3	2011
METRO C - Roma Shaft 4.2 e 4.3 Italy	2 off AXC 800 7,5 kW, V400/50/3 with frequency converter	2011
Tunnel Domodossola Italy	1 off AXC 630 2x18,5 kW, V400/50/3 with frequency converter	2011
ASR Autostrada A3 Salerno - Reggio Calabria Road Tunnel Serra Rotonda, Costa del Monte and Sardinia 2 Tunnels Italy	4 off AXC 1600 2x90 kW, V400/50/3 4 off AXC 1600 90 kW, V400/50/3 1 off AXC 1600 45 kW, V400/50/3 All the fans with frequency converter	2011
Hydraulic tunnel Ulu Jelai Malaysia Project with TBM cooling system	1 off AXC800 4x45 kW, V400/50/3 with frequency converter	2011
Gola della Rossa Quadrilatero Project Safety Tunnel Road tunnel	1 off AXC 800 4x30 kW, V400/50/3 with frequency converter	2011
Highway A14 – Road Tunnel Senigallia - Ancona N Italy	2 off AXC 1600 2x90 kW, V400/50/3 with frequency converter	2011
Fassa S.p.A. - Cagliano mine Italy	1 off Deduster DS16 - 16 m ³ /s dim. WxHxL = 2330x3790x5230 mm 1 off AXC 800 2x51 kW V400/50/3	2010
ITALFEER - Genoca railway link Genova - Brignole stretch S. Tomaso, Colombo, Cameroni Lato Principe	3 off AXC 125 2x75kW, V400/50/3 with frequency converter 1 off AXC 1600 2x132kW, V400/50/3 1 off AXC 1600 132kW, V400/50/3 with frequency converter 2 off AXC 560 2x11kW, V400/50/3 Jet fans for principe side	2010
S.S. 36 Monza Road Tunnel Viale Lombardia Tunnel Italy	1 off AXC 1600 132 kW, V400/50/3 1 off AXC 1600 160 kW, V400/50/3 All the fans with frequency converter	2010
Quadrilatero Umbria - Marche S.S. 77 „Val di Chienti“ Road Tunnel - Gola della Rossa Tunnel Italy	1 off AXC 1600 90 kW, V400/50/3 with frequency converter	2010
Kishanganga Project India	1 off AXC 1600 55 kW, V400/50/3 with frequency converter	2010

Tunnel Construction Ventilation Systems

Site	Fans	Year
SURUC project Hydraulic tunnel with Tunnel Boring Machine [TBM] Turkey	1 off Deduster DS 8 - 8 m ³ /s ATEX dim. WxHxL = 1250x2100x7450 mm 1 off AXC EX 710 - Eexd Zone 1-2G IIB T4 2x22 kW, V400/50/3 1 off AXC 800 2x30 kW, V400/50/3 - IP55 1 off AXC 16004X160 kW, V400/50/3 with frequency converter 1 off AXC 1400 2x110 kW, V400/50/3 with frequency converter	2010
ALP TRANSIT GOTTARD Lotto 852 Monte Ceneri - 2nd Phase Remote ventilation control system with Profibus Suisse	6 off AXC 1600 2x90 kW, V400/50/3 2 off AXC 1600 90 kW, V400/50/3 4 off AXC 1600 55 kW, V400/50/3 2 off AXC 1250 F400 22 kW, V 400/50/3 All the fans with frequency converters 8 off Dumper 1800x1830 mm in stainless steel with electric actuator	2010
ANAS SS212 Val Fortore (BN) Road Tunnel Tunnel Fortorina - Italy	1 off AXC 1600 75 kW, V400/50/3 with frequency converter	2010
Palermo link - Railway tunnel Revamping of existing tunnels Italy	4 off AJ 630 11 kW AXR 630 - V 400/50/3 270 N	2010
NODO DI PALERMO - PA821 Railway link between Palermo-Centrale/Brancaccio - Orleans - Palermo Notabartolo - Cardillo - isola delle Femmine - Carini Italy	1 off AXC 1400 110 kW, V400/50/3 - V400/50/3 3 off AXC 1250 75 kW, V400/50/3 - V400/50/3 All the fans with frequency converters	2010
ENEL Diga Ancia - Tunnel Troina (EN) Hydraulic tunnel Tunnel Bracallá Italy	2 off AXC 900 11 kW, V400/50/3 1 off AXC 900 2x11 kW, V400/50/3 All the fans with frequency converters	2010
METRO C - Roma Metro Tunnel Stations : Teano, Centocelle, Shaft 5.6, Alessandrino, Malatesta, Pigneto and S.Giovanni. Italy	7 off AXC 1600 110 kW, V400/50/3 2 off AXC 1600 75 kW, V400/50/3 8 off AXC 560 7,5 kW, V400/50/3 All fans with frequency converter	2010/09
ALP TRANSIT GOTTARD Lot 852 Monte Ceneri - 1st Phase Ventilation system with remote control via profibus Suisse	6 off AXC 1600 2x90 kW, V400/50/3 2 off AXC 1600 90 kW, V400/50/3 4 off AXC 2000 250 kW, V400/50/3 2 off AXC 1250 F400, 22 kW, V400/50/3 All the fans with frequency converter 8 off stainless steel Dumpers 2200x2200 mm with electric actuator	2010

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ANAS CA/31 - Nuova SS 125 Road Tunnel Murtineddu Tunnel Italy	1 off AXC 1600 2x90 kW, V400/50/3 with frequency converter	2009
METRICO C - Roma Metro Tunnel Shaft 5.4 Italy	1 off AXC 560 7,5 kW, V400/50/3 1 off AXC 1000 15 kW, V400/50/3 All the fans with frequency converters	2009
Strade dei Marmi Carrara Road Tunnel Macina Tunnel Italy	1 off AXC 1600 75 kW, V400/50/3 with frequency converter	2009
NOSUD 1 project - Hydraulic Tunnel Tunnel mechanized drilling [TBM] Iran	1 off Deduster DS 8 - 8m ³ /s dim. WxHxL = 1250x2100x7450 mm 1 off AXC EX 710 2x22 kW, V400/50/3 Eexd zone 1 - 2G IIB T4 with ATEX electrical cabinet 1 off AXC 800 2x30 kW, V400/50/3	2009
Highway A3 Road Tunnel Salerno Reggio Calabria Casalbuono Nord, Varcovalle, Cerreta, Tunnel Renazza Italy	1 off AXC 1600 110 kW, V400/50/3 with frequency converter	2009
Quadrilatero Umbria - Marche SS77 Val di Chienti - Pontelatrive - Foligno Road Tunnel Sostino, La Franca, Costafiore, Madda- lena, La Rocchetta Tunnels. Italy	2 off AXC 1600 2x90 kW, V400/50/3 8 off AXC 1600 90 kW, V400/50/3 All fans with frequency converters	2009
KZN - KUZNETSOVSKIY TUNNEL SIBERIA - mechanized drilling [TBM] - External ventilation station	1 off AXC 1600 132 kW, V400/50/3 with frequency converter	2008
Probe Tunnel KEF EDDIR BARRAGE - Algeria	1 off 630G2 2x15 kW, V400/50/3 with frequency converter	2008
Naples Metro - Line 6 Mechanized drilling [TBM] External ventilations station	1 off LCCR1250 2x55 kW, V400/50/3 with frequency converter	2008
Rail Tunnel Biancavilla (CT) - Dedusting for tunnel drilling with pre- sence of Asbestos	1 off LCCR1250 2x55 kW, V400/50/3 with frequency converter Dedusting system fan	2008
Longitudinal ventilation for tunnel refurbishment RFI Site BELBO 2 ITALY (CN)	2 off AJTR 800 5,5 kW, V400/50/3 240 N - Truly reversible 1 off AJTR 560 7,5 kW, V400/50/3 250 N - Truly reversible	2008
Los Bronces project - Chile Mine inspection tunnel Mechan- ized boring [TBM]	1 off Dedusting system for TBM, with ATEX electric cabinet 1 off 710 ATEX 3x22 kW - V400/50/3	2008

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Site	Fans	Year
Underground gasoline tankers refurbishment - NATO BASE in Sicily (Ragusa)	5 off CRLCF560/2 2x7,5 kW - ATEX - V400/50/3	2008



Metro and Train Tunnel Fans



Metro and Train Tunnel Fans		
Site	Fans	Year
Metro Catania Borgo-Nasina Italy	2 off AXR 1600 TR 132 kW, F250 V400/50/3 complete of: dampers with actuators for 250°C/2h baseframes with antivibration mountings control cabinet with frequency converters vibration control system All assembled and ready for start up	2017
Metro Shiraz Iran	75 off AJ 560 12 kW, F250	2016 / 2017
Metro Jakarta Project 1-4 Stations Indonesia	Bendungan/Istoria/Setia-Budi /Senayan Tunnels Ventilation 16 off AXR 2000 TR 160 kW, F250, V415/50/3 complete with ancillaries and 32 silencers WxHxL 3000x3000x3000mm 16 off AXC 1600 kW 55, F300, V415/50/3 complete with ancillaries and 32 silencers WxHxL 1800x1800x1200 mm	2016
	Various stations from Sungai to Kajang 25 off AXC1250 30 kW 40 off AXC1000 15 kW 14 off AXC1000 7.5 to 15kW including also two speed motors F300 90 off AXC from 400 to 900 mm from 0.37 to 15 kW including also two speed motors and F300, V415/50/3 1565 off cabinet in line/centrifugal in line/ propeller/wall mounted from 100 to 560 mm, V240/50/1	2016
Metro Sofia Bulgaria	4 off AXR 1800 truly reversible 55kW, F250	2016
Metro Shiraz, Iran	25 off AXR 1250 F250, 45, 75 kW - 4 pole; 62 off AXR 1400 F250, 75 kW - 4 pole; 80/21 kW - 4/8 pole; 24 off AXR 2000 F250, 90, 110 kW - 6 pole; 90/20, 110/20, 140/22 kW - 6/12 pole	2016
Metro Catania Borgo-Nesina Italy	14 off AXR 1600 TR 132 kW, F250 V400/50/3 complete of: dampers with actuators for 250°C/2h baseframes with antivibration mountings control cabinet with frequency converters vibration control system All assembled and ready for start up	2015
Delhi Metro (Phase 3, Lot 4) Project Delhi India	20 off AXR 2000 reversible axial fan various powers 250/300 kW 1 off AJ 1250 45 kW 8 off AJ 1400 90 kW 20 off AJ 1600 110 kW 37 off AXC 1250 37 to 45 kW All fans suitable for F250	2015

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Delhi Metro (Phase 3, Lot 3) Project Delhi India	32 off AXR 2000 reversible axial fans various motor powers 250/300 kW 9 off AJ 1250 45 kW 4 off AJ 1400 90 kW 4 off AJ 1600 110kW 46 off AXC 1250 37 to 45 kW All fans suitable for F250	2015
Kulbane and Hvidovre Tunnel Denmark	12 off Mojet AJ 710 F250 2 pole Stainless steel SS 1.4404 34 kW V 400/50/3 IE3 F200	2015
Ferrotranviaria Bari Rail Station Italy	1 off 2240mm 160kW unidirectional axial fan (F400) complete with ancillaries and transition piece	2015
Lørenbanen Norway	2 off AJ 560 F400, 11kW, V400/50/3 F400	2015
Lørenbanen Norway	15 off AJ 560 F400, 7,5kW, V400/50/3 F400	2015
Lørenbanen Norway	32 off AJ 560 F400, 11kW, V400/50/3 F400	2015
Lørenbanen Norway	2 off AXC 900 F300, 15kW, V400/50/3 F300	2015
Lørenbanen Norway	1 off AXC 900 F300, 11kW, V400/50/3 F300	2015
Lørenbanen Norway	1 off AXC 900 F300, 4kW, V400/50/3 F300	2015
Lørenbanen Norway	2 off AXC 1600 F300, 37kW, V400/50/3 F300	2015
Lørenbanen Norway	2 off AXC 1800 F300, 75kW, V400/50/3 F300	2015
Metro Esfahan 2 nd phase Iran	4 off AXR 1250 F250, 70/19 kW 2 off AXR 1400 F250, 75, 90 kW; 70/19 kW 10 off AXR 2000 F250, 90, 110, 132 kW; 90/20, 110/20, 140/20 kW	2015
RET Rotterdam Metro Calandlij Netherlands	117 COLT 1250 axial fans	2014/2015
Amsterdam Metro North- South Line Netherlands	2 off COLT 1600 axial fans 18 off COLT 1400 axial fans 7 off COLT 560 axial fans 16 off COLT 630 axial fans	2014/2015
Vestfoldbanen Holm - Nykirke Norway	44 off AJ 1120 F250, 37kW, V690/50/3 F250	2014/2015
RET Rotterdam Eendrachtsplein Netherlands	2 off COLT 1250 axial fans	2014
AV Treviglio – Brescia Hi Speed Railway	550+ items from air terminal, to dampers, to fans.	2014

Metro and Train Tunnel Fans		
Site	Fans	Year
Liege Station Belgium	22 off stainless steel vertical air curtain electrical heating 12kW complete with BMS interface 20 off Horizontal air curtain electrical heating 22kW complete with BMS interface	2014
Circumetnea Railway Italy	4 off 630mm (2pole, 7.5kW) truly reversible axial fans (F400) complete with transition piece, dampers and electrical control cabinet	2014
CD300F-Taipei MRT Metro Station Taiwan	4 off 1800mm large Axial Fans (F250) 8 off 1250mm Axial fan (F250) 2 off 1600mm large Axial Fans (F250) 2 off 1000mm large Axial Fans (F250) 1 off 900mm Axial Fans (F250) 1 off 500mm Axial Fans (F250)	2014
Keelung Tunnel Project Taiwan	29 off 1000mm truly reversible Jet Fans (F250)	2014
Naples Metro Municipio Station Metro Station Italy	2 off 800mm (2x37kW) two stage contraro- tating, all complete with ancillaries 1 off 1120mm (2x37kW) two stage contra- rotating, all complete with ancillaries 2 off 1120mm (22kW) axial fans (F300), all complete with ancillaries 1 off 630mm (1.5kW) axial fans complete with ancillaries 4 off high temperature dampers 66 off Fire dampers Many other small fans, dampers and grills	2014
Circumetnea Metro Biancavilla, S.M. di Licodia, Adrano Metro Tunnel Italy	18 off AJ 710 (30kW) jet fans (F400), complete with control cabinet and inverter 10 off 900mm (11kW) truly reversible axial fans (F250), all complete with ancillaries, dampers, control cabinet and inverter	2014
CG590A-Taipei MRT (G1, G16, G17 Station) Taiwan	24 off 48GV Axial Fans (F250) 4 off 38GV Axial Fans (F250) 4 off 1000mm truly reversible Jet Fans (F250)	2013
CG590C-Taipei MRT (G21, G22 Station) Taiwan	10 off 1800mm truly reversible Axial Fans (F250) 8 off 38GV Axial Fans (F250) 17 off 48GV Axial Fans (F250) 4 off 900mm truly reversible Jet Fans (F250)	2013
Naples Metro Line 6 / lot 1 Metro Tunnel Italy	3 off 2240mm (160kW) truly reversible axial fans (F250), all complete with ancillaries, silencers and dampers 2 off 1600mm (75kW) truly reversible axial fans (F250), all complete with ancillaries, silencers and dampers	2013

Metro and Train Tunnel Fans		
Site	Fans	Year
STU Parma Rail station Italy	4 off 1000mm (18.5kW) two stage contra-rotating (F400), all complete with ancillaries and silencers. 4 off fan dampers 1250x1250 4 off frequency converters 75kW	2013
Naples Line 1, Garibaldi Station Metro station Italy	2 off 1000mm (18.5kW) unidirectional (F250) 1 off 500mm (3kW) unidirectional (F250) 1 off 800mm (2x30kW) two stage (F250) All fans complete with ancillaries.	2013
Naples Line 1, Toledo Station and Montecalvario	2 off 900mm (5.5kW) unidirectional (F300) 2 off 500mm (3kW) unidirectional (F300) 1 off 560mm (2x11kW) two stage unidirectional All fans complete with ancillaries.	2013
Ipoh-Padang Besar Double Track Project Bukit Berapit Rail Tunnel Malaysia	32 off AJ1000 TR F250, 30 kW, V415/50/3	2012
Metro Catania Italy	6 off 1800mm (110kW) truly reversible axial fans (F250) complete of: - dampers with actuator for 250°C/2h. - baseframes with antivibration springs. - control cabinets with frequency converter. - vibration control system All assembled and ready for startup	2012
Crommelyn Delf Netherlands	38 off COLT 710 axial fans 8 off COLT 1250 axial fans	2012
Bologna Station, Bologna Italy	148 off Axial fans from Ø315 up to Ø1400, single, double and 3stage, unidirectional and truly reversible, standard and high temperature (F300) 235 off baffle silencers of different dimensions	2012
Catania - Ognina rail connection Italy	8 off 1250mm (75kW) unidirectional Axial fans (F250) 4 off 630mm (7.5kW) unidirectional Axial fans 8 off rectangular damper AISI316, ON/OFF actuator suitable for 250°C/2h, 8 off transition pieces, 84 off return grills with regulation dampers.	2011
Metro Sofia Bulgaria	10 off 1800mm (55kW) truly reversible Axial fans (F250) 10 off acoustic Diffusers 10 off Baseframes	2011

Metro and Train Tunnel Fans		
Site	Fans	Year
Palermo Metro Line Italy	8 off 1400mm (55kW) truly reversible Axial fans 8 off 1400mm (75kW) truly reversible Axial fans 8 off 2240mm (132kW) truly reversible Axial fans All the fans certified F250 40 off rectangular damper in AISI316, ON/OFF actuator for 400°C/2h 18 off baffle silencers	2011
Suburban railway Paternó - Adrano Italy	4 off AJ 710 F300, 30kW 4 off AXR 900 F250, 11kW 4 off rectangular damper galvanized, ON/OFF actuator for 250°C/2h, 2 off Switchboard with frequency converter	2011
Gevingåsen Train tunnel Norway	6 off AJ 1600 45kW, V400/50/3	2011
Majorstuatunnelen Metro Oslo Norway	28 off AJ 900 F250, 15kW, V400/50/3	2010
Metro Esfahan 1 st phase Iran	79 off AXR 1250 F250, 45, 75 kW; 70/19 kW 58 off AXR 1400 F250, 75, 90 kW; 70/19 kW; 80/21 kW 36 off AXR 2000 F250, 90, 110, 132 kW; 90/20, 110/20, 140/20 kW	2009
RET Rotterdam Netherlands	44 off COLT 1250 axial fans	2009
Velser Tunnel Netherlands	16 off COLT 1250 reversible axial fans	2009
E602 E806 Tunnel Taiwan	88 off 1000mm truly reversible Jet Fans (F400)	2009
E602 E806 Tunnel Taiwan	88 off 1000mm truly reversible Jet Fans (F400)	2009
Saronno-Malpensa Airport Railway link Connection Italy	10 off 2000mm (160kW) truly reversible Axial fans 2 off 2000mm (290kW) truly reversible Axial fans All the fans certified F250 12 off rectangular damper in AISI316, ON/OFF actuator suitable fo 400°C/2h	2009
Taipei Xian Taiwan	4 off AJ 1120TR Jet fans 12 off AXR 1800 unidirectional axial fans 2 off AXR 1600 unidirectional axial fans All the fans certified F250	2009
Tunnel, Netherlands	16 off AXR1250 (F400) Axial 82 off AXR 1250 (F250) Axial 60 off AXR 1400 (F250) Axial	2009 2008/2009

Metro and Train Tunnel Fans		
Site	Fans	Year
TAV Barbarolo/Grisou Italy	44 off AJ 500TR (F200) Jet fans 3 off AXC 1600 (F200) Axial fans 13 off AXC 1400 (F200) Axial fans 7 off AXC 1120 (F200) Axial fans 4 off AXC 1000 (F200) Axial fans 1 off AXC 900 (F200) Axial fans	2008
Rome Underground Italy	6 off 1400mm truly reversible Axial 7 off 1600mm truly reversible Axial 4 off 2000mm truly reversible Axial 2 off 1250mm 2 stage Axial 213 off 450mm Axial fans	2005/2006
Kaohsing MRT Taiwan	64 off 1800mm truly reversible Axial 32 off 1400mm Axial fans 56 off 900mm truly reversible Jet fan 26 off 1120mm truly reversible Jet fan 103 off 48" Axial fans 70 off 19" Axial fans	2005/2006
Severomysky Railway Tunnel, Baikul Amur Mainline, Russia	24 off 30" Axial fans	2005
Lisbon Underground Portugal	8 off 60" Axial fans 12 off 1800mm Axial fans	2004
Milano Metro, Italy	16 off 75" Axial fans	2004
Oporto Underground, Portugal	12 off 75" Axial fans	2003
Rail Tunnel to ben Gurion 2000 Airport, Israel	14 off 640mm truly reversible Jet Tunnel fans	2003
Lisbon Underground, Portugal	9 off 1800 G 6P Axial fans	2002
LRT- Line 2 Manila Philippines	4 off 1800mm truly reversible Jet fans	2002
Platamonas Railway Tunnel	20 off 900mm truly reversible Jet fans	2002
Rome Underground	18 off 1400mm Axial fans 4 off 1800mm Axial fans	1999
Changi Line	4 off 2500mm truly reversible Axial fans	1999
MRT 348 Taipei	12 off 75" GV 6P Axial fans, 8 off 900mm unidirectional Jet tunnel fans	1998
Pan Chau - Wan Pan Subway Taiwan	8 off 2.5m Axial - 120 m ³ /s truly reversible Axial fans	1996
India	98 off 640mm unidirectional Jet fans	1994
Istanbul Turkey	12 off Dia 48" Jet tunnel fans, stainless Steel construction, full witness testing of performance, vibration, Smoke spill 250°C/1 hour cold performance at -30°C	1991
Naples Line 1, Garibaldi Station	2 off 1000mm (18.5kW) unidirectional (F250) 1 off 500mm (3kW) unidirectional (F250) 1 off 800mm (2x30kW) two stage (F250) all complete with ancillaries.	

Metro and Train Tunnel Fans

Site	Fans	Year
Naples Line 1, Toledo Station, Montecalvario exit	2 off 900mm (5.5kW) unidirectional (F300) 2 off 500mm (3kW) unidirectional (F300) 1 off 560mm (2x11kW) two stage contrarotating unidirectional, all complete with ancillaries.	



Reference: Byfjord- & Mastra fjordtunnels, Norway

In the southwest of Norway, between high mountains and deep fjords, you will find the E39 Byfjord- & Mastra fjordtunnels. E39 is the European highway between Trondheim city in Norway and Ålborg in Denmark.

In 1992 the Byfjordtunnel was the world's longest undersea tunnel, 5,875 meters long and lowest point is 223 meters below sea level. The Mastra fjordtunnel is 4,424 meters long 133 meters below sea level. Today, more than 20 years after they first opened, these tunnels have been fully refurbished with new safety equipment.



Road Tunnel Fans



Road Tunnel Fans		
Site	Fans	Year
Ceppo Morelli Tunnel (1000 m) Verbanò Italy	8 off AJ 1000TR 22 kW F400 Stainless steel SS1.4404	2017
Ping Shuang Tunnel (1200 m) Taiwan	13 off AJ 1250TR 55 kW, F400, V400/50/3	2016
Katzenberg Tunnel (570 m) Germany	26 off AJ 1000 30 kW, F400, V400/50/3	2016
Spaarndammer Tunnel (2x800 m) Netherlands	8 off COLT 1120 30 kW, F250 stainless steel SS 1.4404 V400/50/3 8 off COLT 710 TR 18.5 kW, F250 stainless steel SS 1.4404 V400/50/3	2016
Loboguerrero Tunnel (2x1480 m) Colombia	20 off AJ 1000 TR 34 kW, F250 with deflectors V460/60/3	2016
3rd Bosphorous Bridge Project Riva Tunnel (685+715 m) Turkey	18 off AJ 1250 TR 75 kW, F300 stain- less steel SS 1.4404 with 2D silencers and 6 off control cabinets with soft starters V400/50/3 18 off AJ 1250 TR 45 kW, F300 stain- less steel SS 1.4404 and 6 off control cabinets with soft starters V400/50/3	2016
3rd Bosphorous Bridge Project Camlik Tunnel (740+630 m) Turkey	18 off AJ 1250 TR 108 kW, F300 stain- less steel SS 1.4404 with 2D silencers and 6 off control cabinets with soft starters V400/50/3 15 off AJ 1250 TR 37 kW, F300 stain- less steel SS 1.4404 and 5 off control cabinets with soft starters V400/50/3	2016
Bermals Tunnel (1639 m) Norway	6 off AJ 1120TR 22 kW, F250, IE3, SS1.4404, V400/50/3	2016
Follo Tunnel (2X903 m) Norway	26 off AJ 1120TR 30 kW, F300, IE3, V400/50/3	2016
Bjornebakkane Tunnel (1560 m) Norway	4 off AJ 1120TR 22 kW, F250, IE3, V400/50/3	2016
Bjorkas Tunnel (546 m) Norway	10 off AJ 1120TR 22kW, F250, IE3, V400/50/3	2016
Fossan Tunnel (710 m) Norway	10 off AJ 1120TR 37 kW, F250, IE3, V400/50/3	2016
Bryns Tunnel (267 m) Norway	4 off AJ 560TR 6.5 kW, F250, IE3, SS1.4404, V400/50/3	2016
Kvaenflø Tunnel (1747 m)	16 off AJ 1120TR 27 kW, F250, IE3, V400/50/3	2016
Saksenvik Tunnel (1148 m) Norway	10 off AJ 1120TR 27 kW, F250, IE3, V400/50/3	2016
Tasen Tunnel (2X1338 m) Norway	25 off AJ 1120TR 37 kW, F250, IE3, SS1.4404, V400/50/3	2016
Filefjell Tunnel (5780 m) Norway	20 off AJ 1120TR 22 kW, F250, IE3, V400/50/3	2016
Lyderhorn Tunnel (2X1115 m) Norway	28 off AJ 1250TR 30 kW, hybrid bearings, F250, IE3, V400/50/3	2016

Road Tunnel Fans		
Site	Fans	Year
Ekeberg Tunnel Norway	1 off AJ 1400TR 30 kW, V400/50/3	2016
RV4 Gran Tunnel (2 x 1,700 m) Norway	40 off AJ 1120 F250, 22 kW, V400/50/3 IE3 F200/2	2016
Fagernes Tunnel (2,069 m) Norway	2 off AJ 1000 F250, 18.5 kW, V 400/50/3 IE3 F200	2016
Lussandberg Tunnel (2,500 m) Norway	8 off AJ 1120 F250, 22 kW, V 400/50/3 IE3 F200	2016
Granfoss Tunnel (2 x 2,200 m) Norway	4 off Mojet AJ 710 F250 Stainless steel SS 1.4404 30 kW V400/50/3 IE3 F200 46 off Mojet AJ 1120 F250 stainless steel SS 1.4404 45 kW V400/50/3 IE3 F200	2015/2016
Sepangar Tunnel (620+533 m) Sabah Malaysia	14 off AJ 1000 TR 30 kW F250 with 2D silencers, guards, frame heaters. V415/50/3	2015
Fagernestunnelen (2,069 m) Norway	2 off AJ 1000 F250, 18.5 kW, V400/50/3 IE3 F200	2015
Vaere Tunnel (1,625 m) Norway	6 off AJ 1000 15 kW, V400/50/3 IE3 F200	2015
Kraknes and Stovik tunnels (1,240 m to 2,430 m) Norway	18 off AJ 1120 F250, 22 kW, V400/50/3 IE3 F200	2015
Tromsoysund Tunnel (2x 3,500 m) Norway	56 off AJ 1120 F250, 22 kW, V400/50/3 IE3 F200	2015
Svartdal Tunnel (1,264 m) Norway	2 off AJ 710 F250, 22 kW, V400/50/3 F200	2015
Festnings Tunnel (2 x 1764 m) Norway	1 off AJ 710 F250, 7.5 kW, V400/50/3 F200	2015
Messina Palermo Motorway Capo d'Orlano & Tindari Tunnels (1,500 m) Italy	48 off Mojet AJ 1000 F250 Stainless steel AISI 316L 27 kW, V400/50/3	2015
Tunnel R11 Deurne (420 m) Belgium	22 off COLT 710 jet fans 2 off COLT 900 axial fans	2015
Hamangtunnel (342 m) Norway	3 off AJ 560 F250, 12kW, V400/50/3 IE3 F200	2015
E134 Stordalstunnelen (3,539 m) Norway	6 off AJ 1120 F250, 45kW, V400/50/3 IE3	2015
Hagaåstunnelen (1,641 m) Norway	8 off AJ 1000 F250, 27kW, V400/50/3 IE3	2015
Jan de Vos Tunnel (900 m) Belgium	32 off AJ 630 jet fans	2014
Pollfjelltunnel (3,230 m) Norway	2 off AJ 1120 F250, 22kW, V400/50/3 IE3 F200	2014
Byfjord- og Mastrafjordtunnel (4,424 m to 5,875 m) E39 Norway	88 off Mojet AJ 1120T F250 Stainless steel SS1.4404 37kW, V400/50/3 IE3 F250	2014

Road Tunnel Fans		
Site	Fans	Year
Trældalstunnelen (1,100 m) Norway	8 off AJ 1120 F250, 22kW, V400/50/3 IE3 F200	2014
FV 17 Svartistunnelen (7,624 m) Norway	26 off AJ 1120 F250, 22kW, V400/50/3 IE3 F200	2014
FV 48 Tunnel Bak Tysse (2,300 m) Norway	8 off AJ 1120 F250, 22kW, V400/50/3 IE3 F200	2014
Hamratunnelen Jelsa (959 m) Norway	2 off AJ 1250 75kW, V400/50/3 IE3	2014
Vålerengatunnelen (2 x 832 m) Norway	3 off AJ 1120 13,7kW, V400/50/3 F200	2014
Sandviksåstunnelen (313 m) Norway	4 off AJ 1000 F250, 22kW, V400/50/3 F200	2014
Fredrikssundsvej Copenhagen (367 m) Denmark	18 off AJ 1120 Hot dip galv. + paint F400	2014
A22 Motorway Castelrotto and S. Osvaldo Tunnel (700 m) Italy	8 off AJ 710 F250, 30kW, V400/50/3 F400.	2014
Grimstadporten (552 m) E18 Grimstad, Norway	2 off Mojet AJ 1000 F250 Stainless steel SS1.4404 32,5kW, V400/50/3 IE3 F250	2014
Korgfjelltunnelen (8,533 m) Helgeland, Norway	36 off AJ 1120 22kW, V400/50/3 IE3	2014
Toventunnel (10,665 m) FV 78 Mosjøen Norway	28 off AJ 1000 F250, 30kW, V400/50/3 IE3 F250	2014
Gyadalen (1,030 m) FV 42 Rassikring Norway	8 off AJ 1250 F250, 50kW, V400/50/3 F250	2014
Oppdølstranda (7,430 m) RV 70 Norway	32 off AJ 1120 F250, 22kW, V400/50/3 F250	2014
Kvænflogtunnel (1,747 m) E6 Fauske Norway	8 off AJ 710 F250, 15kW, V400/50/3 F250	2014
Eikåstunnelen (2 x 600 m) E39 Vågsbotn - Hylkje Norway	8 off AJ 1250 F250, 37kW, V400/50/3 F250	2014
Væretunnel (1,625 m) E6 Sør Trøndelag Norway	7 off AJ 1000 F250, 15kW, V400/50/3 F250	2014
New fans after car impact		
Bevrijdings Tunnel Belgium	48 off AJ 630 jet fans	2013
Svartistunnel (7,624 m) Norway	1 off AJ 1120 15kW, V400/50/3	2013
Harangstunnelen (785 m) E39 Sør trøndelag Norway	8 off AJ 1000 F300, 18,5kW, V400/50/3 F300	2013

Road Tunnel Fans		
Site	Fans	Year
Svotunnelen (4,749 m) RV 13 Vatne - Skreppeneset Norway	16 off AJ 1120 F250, 22kW, V400/50/3 F250	2013
Molvikhammartunnel (2,700 m) FV76 Tosbotn - Lande Norway	8 off AJ 1120 22kW, V400/50/3	2013
Strindheimtunnel (2 x 2,502 m) E6 Trondheim - Stjørdalø Norway	26 off AJ 1120 50kW, V400/50/3 8 off AJ 710 30kW, V400/50/3	2013
SS 240 Tunnel Agnese (2,000 m) Italy	4 off AXC 1800 160kW, complete of inertia baseframes, antivibration mounts, interception dampers with electric actuators and transition pieces.	2013
Pedelombarda Trattata A (1,000 m)	62 off AJ 1250 F400 – TR SS 316L (1.4404) 45kW, V400/50/3 F250	2013
Monte Ceneri Tunnel Refurbishment Switzerland	9 off AJ 1200 SS 316Ti (1.4571) thermo-coated 55 kW, V400/50/3	2012
Cernobbio Tunnel Refurbishment (3,000 m) Italy	2 off AXR 2000 two-stage units 250 kW, V690/50/3 2 off AXR 2000 two-stage units 160 kW, V690/50/3 8 off Fan dampers 2240x2240 47 off Tunnel dampers 2000x1000 SS 316Ti (1.4571) with Fiber Optic Control Module and Actuators. 12 off AJ 1000 SS 316L (1.4404) 27kW, V400/50/3	2012
Helltunnelen (3,928 m) Trondheim, Norway New fans after car impact	6 off AJ 1250 15kW, V400/50/3 F250	2012
Hjartåbergstunnel (3,455 m) Løvikneset - Årset E39, Norway	10 off AJ 1120 F250, 22kW, V400/50/3 F250	2012
Pollfjellstunnelen (3,230 m) RV 868 Bodø, Norway	6 off AJ 1120 F250, 22kW, V400/50/3 F250	2012
Væretunnel (1,625 m) E6 Sør Trøndelag, Norway	5 off AJ 1000 F250, 15kW, V400/50/3 F250	2012
Kalviktunnelen (2,729 m) E6 Fauske, Norway	6 off AJ 710 F250, 15kW, V400/50/3 F250	2012
Austmannalitunnelen (903 m) E136 Røldal, Norway	4 off AJ 1120 F250, 22kW, V400/50/3 F250	2012
Hardangerfjordbrua (7,510 m) Vallaviktunnelen, Norway	6 off AJ 1000 F250, 30kW, V400/50/3 F250	2012
Hardangerfjordbrua (1,692 m) Butunnelen, Norway	10 off AJ 1120 F250, 22kW, V400/50/3 F250	2012

Road Tunnel Fans		
Site	Fans	Year
Meysattaz Tunnel Test Center Aosta, Italy	2 off AXC 1000 SS 316L (1.4404) 30 kW, V400/50/3 2 off AXC 355 SS 304 (1.4301) 0.75kW, V400/50/3 4 off Tunnel dampers 2000x800 SS 316Ti (1.4571) 2 off Tunnel dampers 1200x1200 SS 316Ti (1.4571) 2 off ELEKTRA ELH 9kW 1 off KVO 160 and ancillaries 1 off KBT 200 DV and ancillaries Various Transition pieces	2012
Sellero and Capo di Ponte Tunnel (3,500 m) SS 42 del Tonale, Italy	4 off AXC 2000 2x300kW F250 2 off AXC 1250 75kW 21 off AXC 450 2.2kW 2 off AXC 900 15kW 4 off Interception dampers 2240x2240 250°C/2h 2 off Interception dampers 4200x4000 250°C/2h 1 off Interception damper 5200x4000 250°C/2h 2 off Splitter silencers 6800x5000x3000mm 2 off Splitter silencers 3000x2500x2000mm Transition pieces	2012
E6 Highway Eidsvoll Tunnel (1,193 m) Norway	10 off 1000mm truly reversible Jet tunnel fans F250	2011
Tunnel Rica del Garda (400 m) Italy	4 off 1000mm truly reversible Jet Fans stainless steel and F400	2011
Tinnsjøtunnelen (500 m) RV 37 Telemark, Norway	4 off Aj 1250 F250, 75kW, V400/50/3 F250	2011
Vågsbygdporten (2 x 1,300 m) FV 456 Kolsdalen Kristiansand, Norway	26 off Aj 1120 F250, 30kW, V400/50/3 F250 2 off Aj 560 F250, 11kW, V400/50/3 F250 4 off Aj 900 F250, 15kW, V400/50/3 F250 4 off Aj 710 F250, 34kW, V400/50/3 F250	
Tunnel Puantamote (1,000 m) Italy	10 off 1000mm truly reversible Jet Fans stainless steel and F400	2011
Tunnel Monte Cuneo (400 m) Italy	4 off 1000mm truly reversible Jet Fans stainless steel and F400	2011
Various tunnels in the North Italy (1,000 m to 2,500 m) Italy	472 off 1000mm truly reversible Jet fans stainless steel and F400	2010
Helltunnelen (3,928 m) Trondheim, Norway	4 off Aj 1250 15kW, V400/50/3 F250	2010

Road Tunnel Fans		
Site	Fans	Year
Eidsvolltunnelen (1,193 m) E6, Norway	20 off Aj 1000 F250, 22kW, V400/50/3 F250	2010
Øystese vest - Nes (1,210 m) FV 7 Hardanger, Norway	2 off Aj 1120 F400, 45kW, V400/50/3 F400 3 off Aj 1120 F400, 37kW, V400/50/3 F400	2010
Melide Tunnel (1,752 m) Swiss	25 off 1000mm truly reversible Jet Fans stainless steel and F400	2010
C.so Mortara Tunnel (1,000 m) Italy	22 off 1000mm truly reversible Jet Fans stainless steel and F400	2010
Pieve Di Teco Tunnel (1,200 m) Italy	16 off 1000mm truly reversible Jet fans	2009
Marienborgtunnel (1,400 m) Trondheim Norway	6 off Aj 1000 30kW, V400/50/3	2009
Askimporten E18 Askim Østfold Norway	16 off Aj 1120 F400, 30kW, V400/50/3 F300	2009
Ryatunnelen (2,675 m) Troms Norway	26 off Aj 710 F250, 30kW, V400/50/3 F250	2009
Bolladore Tunnel (1,200 m), Italy	16 off 1000mm	2009
Lisbon Tunnels (800 m to 1,350 m) Portugal	24 off Aj 1250 Jet fans F400 8 off Aj 1000 Jet fans F400	2009
A55 North Wales Coast Road (1,080 m) United Kingdom	8 off 630mm (2 pole) truly reversible Jet fans F400	2009
A32 Motorway (1,000 to 3,000 m) Italy	328 off 1000mm truly reversible Jet fans stainless steel - F400	2009
Koumaria-S2 tunnel, (846 m) Greece	20 off Aj 1120TR Jet fans F250	2009
Lavrio Park Tunnel, (200 m) Greece	2 off Aj 1250 Jet fans F250	2009
Stara Trazevic Tunnel (320 m) Bosnia Herzegovia	4 off 710mm truly reversible Jet fans F250	2009
Volos Tunnel, (450 m) Greece	8 off Aj 1120 F250 Jet fans	2009
Leopold II Tunnel, (2,534 m) Brussels, Belgium	5 off 560mm unidirectional Jet fans F300, 10off 630mm unidirectional Jet fans F300 All the fans certified F300	2009
Marj Al Haman - Jabal Arafat (260 m) Amman, Syria	4 off 1250mm truly reversible Jet fans	2009
	3 off 630mm unidirectional Jet fans	2009
TACA- Hariye Konge Vadisi (450 m) Turkey	8 off Aj 710 Jet fans F300	2009
Charleroi Mayence Tunnel (430 m) Belgium	8 off Aj 1000 jet fans	2008
Dartford River Crossing (1,436 m) England	8 off 630mm unidirectional Jet fans	2008
Anhlio (2,064 m) Greece	52 off 1120mm truly reversible Jet fans	2008

Road Tunnel Fans		
Site	Fans	Year
Arahthos-Metsovo (2,6333 m) Greece	70 off 1120mm truly reversible Jet fans	2008
Egnatia Road (1,189 m) Greece	38 off 1120mm truly reversible Jet fans	2008
Tunnel Symbolou (1,150 m)	38 off 1120mm truly reversible Jet fans	2008
Bosnia-Herzovina (800 m)	16 off Aj 710 Jet fans F300	2008
Airport tunnel Dubai Intl. airport terminal 3 (300 m) Dubai	2 off Aj 1000 Jet fans 2 off Aj 900 Jet fans	2008
Ismit Tunnel (250 m) Istanbul, Turkey	2 off Aj 1400 Jet fans	2008
Amoreieas- Marques Tunnel (1,275 m) Portugal	10 off 710mm truly reversible Jet fans 8 off 630mm truly reversible Jet fans 6 off 380mm truly reversible Jet fans	2006
Dartford River Crossing (1,436 m) England	16 off 710mm unidirectional Jet tunnel fans	2005
Mohlos Tunnel (600 m) Greece	10 off 1120mm truly reversible Jet fans	2005
Road Tunnel Achzu (2,400 m) Krasnodar region, Russia	22 off 1000mm Truly reversible Jet fans	2005
Balmun C4 Tunnel (750 m), Turkey	12 off 560mm unidirectional Jet fans	2004
Kavik Tunnel (600 m) Istanbul, Turkey	10 off 1000mm truly reversible Jet fans	2004
Mahmutby Tunnel (750 m) Istanbul	15 off 1000mm truly reversible Jet fans	2004
Madeira Tunnels (2,087 to 3,168 m) Portugal	39 off 1000mm truly reversible Jet fans 50 off 860mm truly reversible Jet fans	2004
Viseu Tunnel (350 m), Portugal	7 off 710mm truly reversible Jet fans	2004
Messina- Palermo Motorway (1,000 m to 2,000 m) Italy	84 off 1000mm truly reversible Jet fans	2004
Metsova & Dodini Tunnel (3,589 m) Greece	82 off 1120mm truly reversible Jet fans	2004
Ham Bao Tunnel (2 x 1,350 m) Taiwan	48 off 1250mm Jet fans, 8 off 2500mm Axial fans	2004
Madeira Tunnels (2,087 m to 3,168 m) Portugal	117 off 1000mm truly reversible Jet fans	2003
A38 Saltash Tunnel (370 m), England	7 off 1250mm unidirectional Jet fans	2003
Wadi-Muddiq Tunnel (450 m) U.A.E.	12 off 1000mm truly reversible Jet fans	2002
Elstree Cable Tunnel (24,000 m) St. Johns Wood, England	4 off 78 GV 6P 1400mm	2002
Greece Tunnel Road (1,350 m)	20 off 900mm truly reversible Jet fans	2002
East India Dock Road (820 m) London, England	12 off 710mm Jet fans	2002
A.8 Mons Road Tunnel (600 m) Belgium	16 off 710mm unidirectional Jet fans	2000

Road Tunnel Fans		
Site	Fans	Year
Adelaide Crafters Tunnel (500 m) Australia	16 off 1250mm unidirectional Jet tunnel fans	1998
Smithsfield Underpass (300 m) Hong Kong	4 off 1000mm unidirectional Jet fans	1997
John 21 Tunnel (1,100 m) Portugal	12 off 640mm truly reversible Jet fans	1997
Lorong Kuda Tunnel (1,100 m) Kuala Lumpur, Malaysia	6 off 480mm truly reversible Jet fans 6 off 960mm truly reversible Jet fans 2 off 1600mm truly reversible Axial fans	1997
Lainberg Tunnel (2,278 m) Austria	16 off 1000mm 4P truly reversible Jet fans	1997
Pierre Pertuis Tunnel (2,208 m) Switzerland	18 off 1000mm truly reversible Jet fans	1997
Caulfield Racecourse (200 m) Melbourne, Australia	3 off 650mm truly reversible	1996
Taarnby Tunnel (700 m) Denmark	44 off 1120mm truly reversible	1996
Cabo Girao - Quinta Grande (1,806 m) Ribeira Brava, Madeira	75 off 1000mm Jet tunnel fans	1996
Bute Town (715 m) Cardiff	70 off 640mm truly reversible Jet fans	1994
Messina- Palermo Motorway (1,000 m to 2,500 m), Italy	156 off 1000mm Jet fans 44 off 1000mm unidirectional Jet fans 80 off 1000mm unidirectional Jet fans 32 off 1000mm unidirectional Jet fans	1995
Cheung Ching Tunnel (1,600 m) Hong Kong	72 off 1250mm unidirectional Jet fans	1995
China (1,020 m)	14 off 900mm truly reversible Jet fans	1995
Golden Mountain II (400 m) Taiwan	3 off 1250mm truly reversible Jet fans	1995
Keelung Road Subway (1,278 m) Taiwan	12 off 1250mm truly reversible Jet fans 6 off 640mm truly reversible Jet fans 2 off 1600mm truly reversible Axial fans	1995
Aakratjorden Tunnel (7,404 m) Norway	3 off 1000mm Jet tunnel fans	1993
Troon Tunnel (800 m), Belgium	12 off 610mm Jet fans	1993
Dartford River Crossing (1,436 m) England	30 off 610mm Jet fans	1992
Leopold II Tunnel (2,534 m) Brussels, Belgium	50 off 24" Jet Fans 28 off 2.5m variable pitch in motions Fans	1986
Mecca Inner Ring Road Mirr 2 + 3 (3 x 600 to 1,200 m)	40 off 48G 1/3 (1220mm)	1984
Taif Conference Palace Underpass (400 m)	6 off 24E 1/2 (610mm)	1984
Vier Armen Tunnel (805 m) Belgium	4 off 900mm Jet tunnel fans	1983
Great Belt of Charieori Messina- Palermo Motorway (400 to 1,800 m), Italy	30 off 38G 1/2 156 off 1000mm Jet fans	1980

Road Tunnel Fans

Site	Fans	Year
Blackwall Tunnel (1,362 m) London, England	8 off 2.5m variable pitch in motion fans	
Passauer Tunnel (1,855 m) Austria	8 off 1120mm truly reversible 1170N - Jet tunnel	



Road and Rail Safety Escape Routes



Road and Rail Safety Escape Routes		
Site	Fans	Year
Quadrilatero Project Italy	52 off AXC 500 0.75 kW 4 off AXC 1120 22 kW 52 distribution dampers 62 PKI 120 fire dampers 49 PKI3G fire dampers 20 NOVA grilles Other ancillaries	2016
Col di Tenda Italy	10 off AXC 630 11 kW 14 MRT overpressure dampers 36 NOVA grilles Other ancillaries	2016
Sarentino Tunnel Italy	8 off AXC 710 1.5 kW 8 off KPB fan boxes 8 off PKI fire dampers	2016
Tindari Capo d'Orlando Tunnel	4 off AXC 500 0.75kW 4 off PKIR3G fire dampers	2016
Messina-Palermo Motorway Italy	4 off PKIER-EI fire dampers 4 off MRT overpressure dampers	
SS 508 Sarentino Road Tunnel Italy	8 off AXC 1.5 kW 8 off PKIR fire dampers 4 off KPB fan boxes	2016
A14 Sappanico Road Tunnel Italy	10 off AXC 500 1.1kW 10 off AXC 450 0.55 kW 30 off PKIS-EI fire dampers 10 off MRT overpressure dampers Other fan ancillaries	2016
Cattolica Railway Tunnel Italy	16 off AXC 630 11 kW Other fan ancillaries	2016
Quadrilatero Road Tunnels Valico di Fossato Gola della Rossa Le Silve La Madonnella Sassi Rossi	4 off AXC 1120 22 kW 41 off AXC 500 0.75 kW 56 PKIR-EI fire dampers 43 of PKIS-EI fire dampers 78 off PKIR3G fire dampers	
Romeriksporten Norway	2 off AXC 500 F300 3 kW V400/50/3 IP65 F300/2 2 off over pressure relief dampers Stainless steel	2015
Vestfoldbanen Holm- Nykirke Norway	11 off AXC 560 F300 1,1kW, V690/50/3 F300 22 off Over pressure relief dampers, Stainless steel	2015
Pedelombarda Trattata A	44 off AXC 500 V400/50/3 44 off fire dampers 500mm 22 off fire dampers 400x800 22 off overpressure dampers 400x800	2013

Road and Rail Safety Escape Routes		
Site	Fans	Year
SS 42 del Tonale Sellero and Capo di Ponte Tunnel Italy	21 off AXC 450 V400/50/3 21 off fire dampers 900x400mm 21 off overpressure dampers 900x400 23 off overpressure dampers 1000x500	2012
A1 Motorway - Tunnel Melarancio e Pozzolatico Italy	24 off AXC 500 2.2kW 24 off cylindrical fire dampers 36 off AW 400 F250 0.220kW 6 off AXC 800 11kW	2011
E90 Jonica Tunnels Italy	30 off AXC 710 3.0kW in s. steel w/spring actuator 30 off cylindrical fire dampers in galvanized steel w/spring 30 off rectangular fire dampers in galvanized steel w/spring actuator 30 off overpressure dampers in gal- vanized steel w/balancing weight	2010-2011
A12 Motorway Tunnels Italy	36 off AC 630 1.5kW 72 off rectangular fire dampers in galvanized steel w/spring actuator 36 off overpressure dampers in galva- nized steel w/balancing weight 36 off cylindrical silencers	2010
Brixen Tunnel	3 off AXC 630 2.2kW 6 off rectangular fire dampers in gal- vanized steel w/spring actuator 3 off overpressure dampers in galva- nized steel w/balancing weight	2010
Castelfirmiano Tunnel	2 off AXC 710 0.9/3.2kW 4 off circular fire dampers in galvanized steel 2 off overpressure dampers in galvanized steel w/balancing weight	2010
A1 - A14 Motorway Italy	20 off AXC 710 3.0kW 20 off circular fire dampers in s. steel 1.4301 (AISI 304) w/spring actuator 20 off rectangular fire dampers in s. steel 1.4301 (AISI 304) w/spring actuator 20 off overpressure dampers in s. steel 1.4301 (AISI 304) w/balancing weight	2010

Road and Rail Safety Escape Routes

Site	Fans	Year
Largnano Tunnel Italy	8 off AXC 630 1.1kW 8 off circular fire dampers in galvanized steel w/spring actuator 4 off rectangular fire dampers in galvanized steel w/spring actuator 4 off overpressure dampers in galvanized steel w/balacing weight 8 off circular dampers in galvanized steel	2010
Buttoli Tunnel Italy	4 off AXC 630 1.1kW 4 off circular fire dampers in galvanized steel w/spring actuator 2 off rectangular fire dampers in galvanized steel w/spring actuator 2 off overpressure dampers in galvanized steel w/balacing weight 4 off circular dampers in galvanized steel	2010
Liguria Rail Tunnels - 1 st Lot Italy	6 off AXC 1000 18.5kW 6 off rectangular control dampers in galvanized steel w/actuator 6 off rectangular fire dampers in galvanized steel 24 air curtains MTV41 6 off AJ 632P Jet fan	2009



Reference: Svatunnel, Norway

In the northeast of Stavanger the highway 13 goes along the precipitous shore of lake Tysdalsvatnet. From 2011 to 2013, a 3.5-kilometer long tunnel has been built to protect road users against avalanches. For this project, Systemair has delivered 16 tunnel jet fans, type AJ with 1,120 mm diameter.



Systemair worldwide



Systemair production facilities worldwide:

Skinnskatteberg, Sweden:

Head office of the Systemair group, distribution center and largest production facility with one of Europe's most advanced R&D-centers. Production of fans and accessories, compact air handling units, air curtains and heating products.

Windischbuch, Germany:

Production facility for fans and modular air handling units, specialized on engineered products (e.g. tunnel and jet fans). Distribution center.

Mülheim an der Ruhr, Germany:

Menerga-Systemair, is a leading European

producer of air handling units for swimming pool halls and comfort ventilation with extra high efficiency.

Langenfeld, Germany:

Production of air curtains.

Hässleholm, Sweden:

VEAB manufactures heating products for ventilation systems, mobile and stationary fan heaters and dehumidifiers.

Ukmerge, Lithuania:

Modern production facility for air handling units with focus on energy recovery.

Maribor, Slovenia:

Production of high temperature fans and air handling units.

Aarhus, Denmark:

Production of modular air handling units.

Dal, Eidsvoll, Norway:

Production of air handling units for the Norwegian market.

Bratislava, Slovakia:

Production and modern R+D center for air distribution products and fire and smoke dampers.



Quality:

Systemair is certified in accordance with ISO 9001; ISO 14001 and ATEX. Our research and development laboratories are one of the most modern in Europe; measurements are made in accordance with international standards like AMCA and ISO.

Save energy, lower running cost!

Our label "Green Ventilation" features products with a high energy saving potential. All products labelled with "Green Ventilation" combine energy economy with energy efficiency.



Madrid, Spain:

Production of air handling units and box fans.

Milan, Italy:

Production of chillers and heat pumps.

Waalwijk, Netherlands:

Production of air handling units, also for marine applications.

Tillières-sur-Avre, France:

Production of air conditioning products.

Istanbul, Turkey:

Systemair-HSK is Turkey's leading manufacturer of air handling units.

Bouctouche, Canada:

Production of fans and air handling units for the North American market.

Tillsonburg, Canada:

In Tillsonburg we develop, engineer, service and manufacture school classroom ventilation equipment for the American market.

Kansas City, USA:

Production of fans for the US market.

Sao Paulo, Brazil:

Production of air handling units.

Kuala Lumpur, Malaysia :

Production of fans for the Asian market.

Hyderabad, India:

Production of air distribution products.

New Delhi, India:

The factories in New Delhi and Noida manufacture grilles and diffusers.

Wujiang, China:

Production of air handling units for the Asian market.

Notes

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Notes

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