

Tunnel damper



Customer: BLS Netz AG

Place of installation: Lötschberg, Switzerland

Project description:

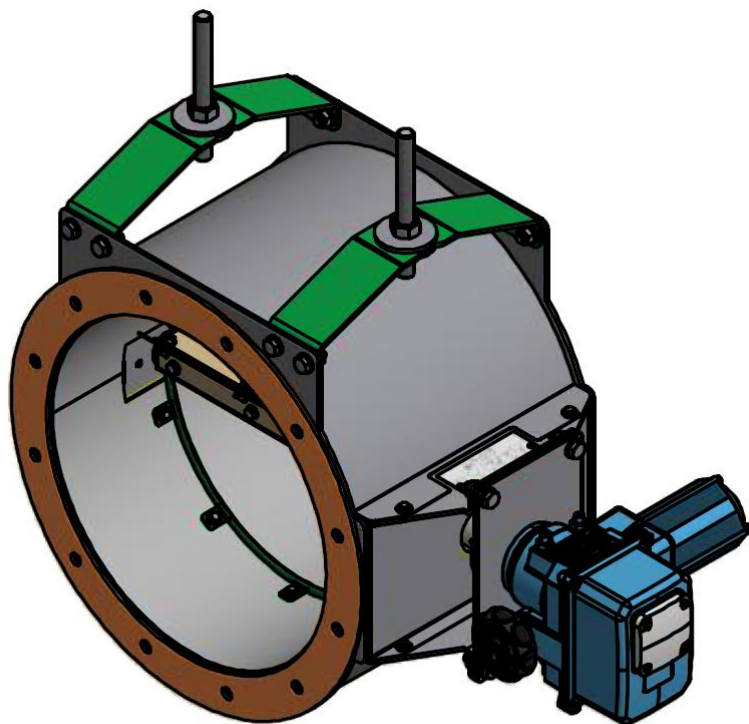
Construction, manufacturing and delivery of 3 dampers for test cross section ventilation

Product description

3 Ventilation dampers SVD Ø 300mm electric open/close
made of stainless steel 1.4571

Temperature requirement: 250°C / 90 minutes - full functionality
1000°C / 90 minutes – damper must be closed

Tunnel damper



Customer: Marti Technik AG

Place of installation: Ceneri Tunnel, Switzerland

Project description:

Construction, manufacturing and delivery of 140 ventilation dampers for cross section ventilation

Product description

138 shut-off dampers SVD Ø 450 mm

2 shut-off dampers SVD Ø 400 mm

Made of stainless steel 1.4571

Temperature requirement: 250°C / 90 minutes – full functionality

1000°C / 90 minutes – damper must be closed

Tunnel damper



Customer:

Marti Technik GmbH

Place of installation:

Gotthard Basistunnel, Switzerland

Project description:

Development, delivery and assembly of 537 ventilation dampers for batch B1

Product description

510 Ventilation dampers SOK 550x450 mm

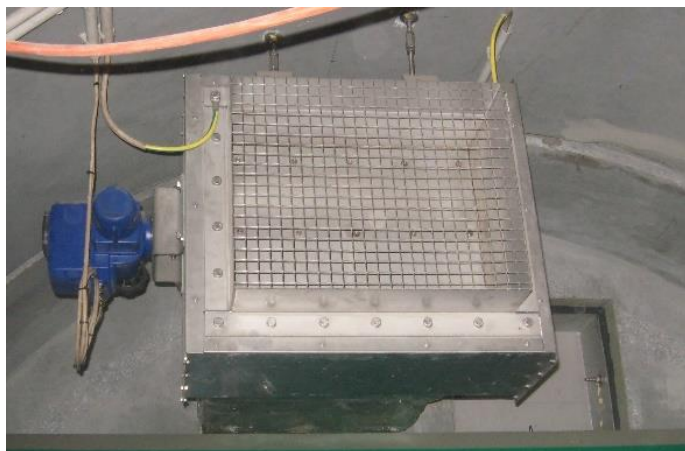
27 Ventilation dampers SOK Ø 400 mm

Material: stainless steel 1.4571

Leakage 0,25 m³/s/m² at 2500 Pa

Compression strength: 20.000 Pa

Temperature requirement: 250°C / 90 minutes – full functionality



Tunnel damper



Customer: STRABAG Infrastructure & Safety Solutions

Place of installation: Schmittentunnel, Austria

Project description:

Engineering, production, delivery and installation of

- exhaust air dampers for concentrated air exhaustion in standard operation and case of fire
- connecting dampers in the parting wall of the ventilation duct

Product description

34 HDD/TRD 1000 x 1480 mm with front and back guide air profile

Maximum allowable differential pressure ± 4000 Pa, temperature resistance 400 °C / 120 min.

12 TRD 1350 x 1450 mm

Maximum allowable differential pressure ± 4000 Pa, temperature resistance 400 °C / 120 min.

2 TRD/HDD 3270 x 2180 mm

Maximum allowable differential pressure ± 4000 Pa, temperature resistance 400 °C / 120 min.

265 locking plates 720 x 390 mm

Maximum allowable differential pressure ± 3000 Pa, temperature resistance 400 °C / 120 min.

Tunnel damper



Customer: DÜRR Austria GmbH

Place of installation: Zentrum am Berg, Eisenerz, Austria

Project description:

Engineering, production, delivery and installation of components for escape route ventilation

Product description

4 HDD 700 x 700 mm
maximum pressure difference ± 2500 Pa, temperature requirement E90

4 UDK 700 x 700 mm
maximum pressure difference ± 2500 Pa

Tunnel damper



Customer: OSMO Anlagenbau GmbH
Place of installation: Station Marketplace Karlsruhe, Germany

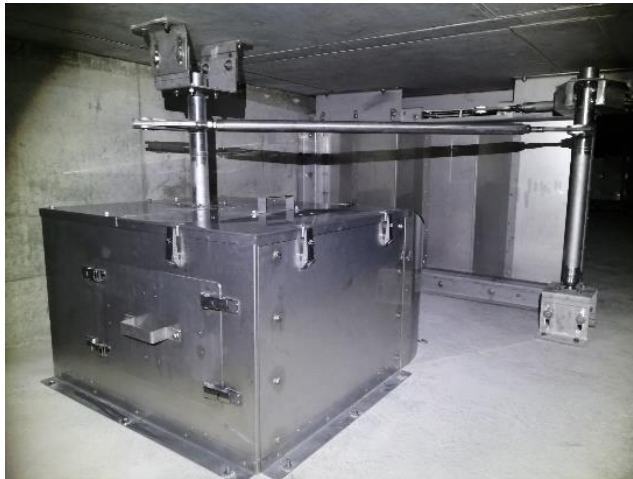
Project description:

Installations in the tunnel ceiling for controlled extraction in case of fire

Product description

11 throttling elements
maximum 2000 Pa, functionality at 400°C / 120 min.

2 profile shut-off dampers
maximum 3500 Pa, leakage maximum 0,1 m³/m²/s at 2000 Pa
functionality at 400°C / 120 min.



Tunnel damper



Customer: ASTRA Zofingen

Place of installation: Tunnel Belchen, Switzerland

Project description:

Installations in the tunnel ceiling for local exhausting in standard operation and case of fire

Fan shut-off-damper for 2 ventilation stations

Product description

32 TRD 2470 x 2100mm

maximum 2500 Pa, leakage maximum 0,1 m³/m²/s at 2500 Pa

functionality at 250°C / 120 min

4 HDD/TRD 2500 x 2500mm

maximum 3500 Pa, leakage max. 0,1 m³/m²/s at 2500 Pa

functionality at 250°C / 120 min

Tunnel damper



Customer:

Dürr Group GmbH

Place of installation:

Bad Godesberg, Germany

Project description:

Engineering, production, delivery and installation of

- exhaust air dampers in the tunnel ceiling for local exhaustion in standard operation and case of fire
- impulse dampers for fresh air to affect the air velocity into the tunnel profile in case of fire

Product description

21 TRD 2960 x 2100 mm service gangway included

maximum differential pressure ± 4000 Pa

leakage $0,1 \text{ m}^3/\text{s}/\text{m}^2$ at 2500 Pa and 20°C, temperature requirement 400°C / 120 min.

6 TRD 1980 x 2880 mm service gangway included

maximum differential pressure ± 4000 Pa

leakage $0,1 \text{ m}^3/\text{s}/\text{m}^2$ at 2500 Pa and 20°C, temperature requirement 400°C / 120 min.

4 TRD 2530 x 1917 mm service gangway included

Maximum differential pressure ± 4000 Pa

leakage $0,1 \text{ m}^3/\text{s}/\text{m}^2$ at 2500 Pa and 20°C, temperature requirement 400°C / 120 min.

Tunnel damper



Customer: ASTRA Winterthur

Place of installation: Tunnel Galgenbruck, Switzerland

Project description:

Installations in the tunnel ceiling for local exhaustion in standard operation and case of fire, fan shut-off-damper for ventilation station and shut-off-damper for escape galleries

Product description

13 TRD 2870 x 1910mm

maximum 3000 Pa, leakage max. 0,1 m³/m²/s at 2500 Pa, functionality at 250°C / 120 min

2 HDD/TRD 2800 x 2800mm

maximum 2600 Pa, leakage max. 0,1 m³/m²/s at 2500 Pa, functionality at 250°C / 120 min

2 HDD-L 1100 x 1100mm

maximum 1000 Pa, leakage max. 0,05 m³/m²/s at 500 Pa

2 UDK 1550 x 750mm

maximum 250 Pa, control range 100-200 Pa

Tunnel damper



Customer:

ASTRA - CH

Place of installation:

Tunnel Sachseln, Switzerland

Project description:

Engineering, production, delivery and installation of exhaust air dampers in the tunnel ceiling for local exhaust in standard operation and case of fire

Product description

62 TRD 2610 x 2090 mm with integrated smoke detector

Maximum allowable differential pressure ± 5000 Pa

Requirement leakage limit $0,65 \text{ m}^3/\text{s}$ at 3000 Pa

Suitability in case of fire $250^\circ\text{C} / 120 \text{ min.}$

1 TRD/HDD 4820 x 2350 mm

Maximum allowable differential pressure ± 6000 Pa

Requirement leakage limit $1,15 \text{ m}^3/\text{s}$ at 3000 Pa

Suitability in case of fire $250^\circ\text{C} / 120 \text{ min.}$



Tunnel damper



Customer: ASFINAG Bau Management GmbH

Place of installation: Gleinalmtunnel, Austria

Project description:

Engineering, production, delivery and installation of

- exhaust air dampers in the tunnel ceiling for local exhausting in normal operation and case of fire
- exhaust air dampers in the tunnel shaft for protection against falling ice
- closures for the ventilation inlet openings

Product description

161 TRD 2850 x 2880 mm

maximum differential pressure 4000 Pa

Leakage rate 0,1 m³/s/m² at 4000 Pa / 20 °C, temperature requirement 400 °C / 120 min.

2 TRD/HDD 2000 x 5000 mm

maximum differential pressure 4000 Pa

Leakage rate 0,1 m³/s/m² at 4000 Pa / 20 °C, temperature requirement 400 °C / 120 min.

2 TRD/HDD 700 x 700 mm

maximum differential pressure 4000 Pa

Leakage rate 0,1 m³/s/m² at 4000 Pa / 20 °C, temperature requirement 400 °C / 120 min.

4 closures for the ventilation inlet openings 4000 x 3250 mm

Maximum allowable static differential pressure ± 2000 Pa, temperature requirement 400 °C / 120 min.

Tunnel damper



Customer: Zitron Nederland

Place of installation: Traintunnel Infrabel Jonction nord midi,
Brussels, Belgium

Project description:

Engineering, production & delivery of fan shut off damper

Product description

SVD damper with guide tube

9 x 2810 mm blade diameter

4 x 2234 mm blade diameter

Pressure difference 3000 Pa

Functionality at 400°C / 30 minutes

Weight ~2.300 kg

Tunnel damper



Customer: PKE

Place of installation: Tunnel Amberg, Austria

Project description:

Engineering, production, delivery and mounting of crosscut ventilation system

Product description

22 ventilation units for 11 crosscuts consisting of:

Shut off damper ES120

Overpressure damper with actuator

Air duct transition piece

Axial fan

Tunnel damper



Customer: Cegelec Mobility

Place of installation: Tunnel Neuchâtel, Switzerland

Project description:

Engineering, production and delivery of fan shut off and butterfly damper

Product description

4 BFD 2350x2350 mm

2 BFD 2450x2450 mm

4 HDD 3000x3000 mm

4 HDD 2300x2300 mm

max. differential pressure 5250 Pa

Leakage 0,15m³/s/m² at 4000 Pa

Tunnel damper



Customer: Kanton Wallis

Place of installation: Tunnel Eyholz, Visp, Switzerland

Project description:

Engineering, production, delivery and installation of machinery located in the tunnel ceiling for concentrated air exhaustion during regular and event operation

Product description

82 TRD 2366 x 2500 mm

max. 3000 Pa

Leakage 0,10 m³/s/m² at 2500 Pa

Functionality at 250°C / 120 minutes

Tunnel damper



Customer: Strabag

Place of installation: Tunnel Scheibengipfel, Reutlingen, Germany

Project description:

Engineering, production, delivery and installation of machinery located in the tunnel ceiling for concentrated air exhaustion during regular and event operation

Product description

22 TRD 1420 x 3880mm

max. 2800 Pa

Leakage 0,10 m³/s/m² at 2000 Pa

Functionality at 400°C / 90 minutes

2 fan shut-off damper

2 air deflectors

1 bird protection netting

Tunnel damper



Customer: Cegelec Mobility

Place of installation: Tunnel Neuchâtel, Switzerland

Project description:

Engineering, production and delivery of machinery located in the tunnel ceiling for concentrated air suction during regular and event operation

Product description

62 TRD 2570 x 2330mm

max. 4000 Pa

0,15 m³/s/m² at 4000 Pa

0,10 m³/s/m² at 2500 Pa

Functionality at 250°C / 120 minutes

Temperature resistance 400°C / 90 minutes

Tunnel damper



Customer: Kanton Graubünden

Place of installation: Tunnel Landwasser, Davos, Switzerland

Project description:

Engineering, production, delivery and installation of escape tunnel ventilation system

Product description

4 ventilation units for 4 escape tunnels consisting of:

Shut off damper E90

Pressure relief damper

Air ducts

Axial fan

Tunnel damper



Customer: Cegelec Switzerland

Place of installation: Tunnel Neuchâtel, Switzerland

Project description:

Installations in the tunnel ceiling for local exhausting in standard operation and case of fire

Product description

32 TRD 2570x2330mm

max. 4000 Pa

Leakage max. 0,1 m³/s/m² at 2500 Pa

Functionality at 250°C / 120 minutes

Temperature resistance at 750°C / 90 minutes

Tunnel damper



Customer: Astra Estavayer

Place of installation: Mont Terri & Russelin, Switzerland

Project description:

Installations in the tunnel ceiling for local exhausting in standard operation and case of fire

Shut off damper 7420 x 2350 mm

Product description

86 TRD 3070x2100mm

max. 4000 Pa

Leakage max. 0,14 m³/s/m² at 4000 Pa

Functionality at 250°C / 120 minutes

Temperature resistance at 750°C / 90 minutes

Tunnel damper



Customer: DPB

Place of installation: Tunnel Strengen, Austria

Project description:

Refurbishment of the tunnel system, installation of overpressure ventilation in the cross passages

Product description

Ventilation components for 14 cross passages – installation of two units per cross passage, each consisting of:

- 1 smoke exhaust damper
- 1 pressure relief damper
- 1 adapter
- 1 cross passage fan with silencer and accessory

Tunnel damper



Customer: Kanton Graubünden

Place of installation: Tunnel Küblis, Switzerland

Project description:

Installations in the tunnel ceiling for local exhausting in standard operation and case of fire

Product description

22 TRD 2560x2110 mm

max. 4500 Pa

Leakage max. 0,12 m³/s/m² at 3500 Pa

Functionality at 250°C / 120 minutes

Temperature resistance at 750°C / 90 minutes

Tunnel damper



Customer: ASFINAG

Place of installation: A10 Tauernntunnel, St. Michael, Austria

Project description:

Refurbishments of installations in the tunnel ceiling for local exhausting in standard operation and case of fire

Product description

Revision of 126 smoke extraction dampers – disassambling, cleaning, exchange of bearings and levers, reassembling and setting into operation under traffic conditions

Tunnel damper



Customer: Roveredo

Place of installation: Astra Bellinzona, Tessin, Switzerland

Project description:

Installations in the tunnel ceiling for local exhausting in case of fire

Product description

24+1 dampers TRD 2850x1895 mm

3 dampers HDD 2800x2800mm and dampers for the safety tunnel
max. 5000 Pa

Leakage max. 0,11 m³/s/m² at 4000 Pa

Functionality at 250°C / 120 minutes

Temperature resistance at 750°C / 90 minutes

Tunnel damper



Customer: Caverion

Place of installation: A11 Karawankentunnel, Austria/Slovenia

Project description:

Installations in the tunnel ceiling for local exhausting in standard operation and case of fire – reinstallations and refurbishments

Product description

12 TRD 2150x2160 mm

max. 6000 Pa

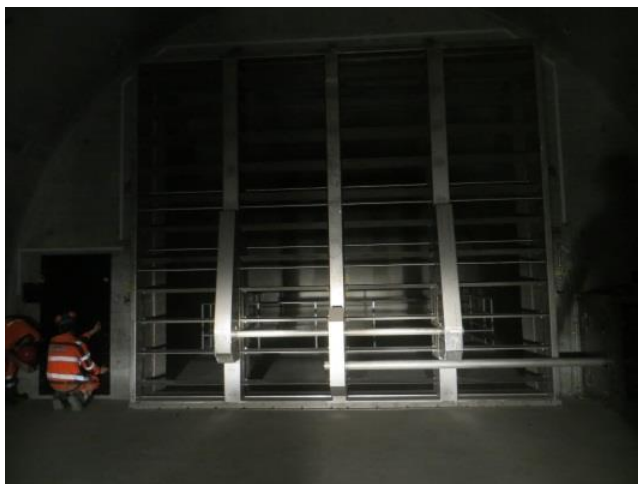
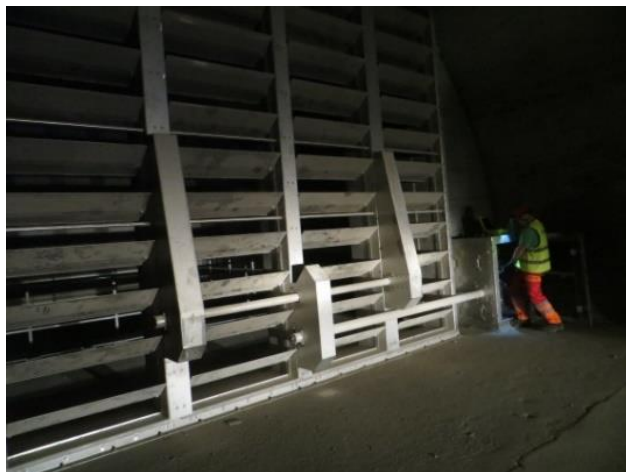
Leakage max. 0,1 m³/s/m² at 4000 Pa

Functionality at 400°C / 120 minutes

Temperature resistance at 750°C / 90 minutes

Fresh air injection and shut off damper, revision of 60 smoke extraction damper

Tunnel damper



Customer: TLT

Place of installation: Gotthard Basistunnel, Switzerland

Project description:

Smoke evacuation damper in the emergency stops for targeted smoke extraction of the tracks and the escape routes

Product description

28 HDD/TRD 5000x4200mm

max. 20000 Pa

Leakage max. 0,1 m³/m²/s at 4000 Pa

Functionality at 250°C / 90 minutes

Temperature stability at 1000°C / 90 minutes