

Machine data

Measure sheets referred to in Simatek's Order Confirmation may be obtained from www.simatek.com

Filter	
Customer:	Tomal AB
Customer purchase No.	IN26933
Country of installation:	Sweden
Simatek order confirmation No.:	S24337
Filter:	Filter type: SimPact® JM 52/35 – 12 4T3-R Machine No.: 9722
GA drawing:	414924
ATEX Zone:	Installation: Zone 22 Filter outside: Zone 22 Filter inside: "As ATEX Zone 20".
ATEX marking:	Ex II 3D
Air flow:	10,000 Am ³ /h
Operating temperature:	15 °C
Filter area:	80,0 m ²
Filter air / cloth ratio:	2,08 m ³ /m ² /min
Product:	Woodchip dust
Filter control:	Simatek item No. 48802 / Type TFCD 16, Filter controller with Delta-P 230 VAC/24VDC ATEX II 3 D Documentation for this item in part 8
Junction box for solenoid valves:	Simatek item No. 48117 / Type with 10 output Documentation for this item in part 7
Solenoid valves:	Simatek No. 26486/Type Buschjost Twist on 1½" 8296600.8176.02400 Documentation for this item in part 7
Filter bags:	Simatek item No. 4269 / Type PES 400-G-X-CS Documentation for this item in part 8
Filter cages:	Filter cage type HR, Simatek item No. 46057 Extension cage, Simatek item No. 46491 Centre collar, Simatek item No. 46056 Filter cage bottom, Simatek item No. 46055
Compressed air-receiver:	Simatek item No. 1121 / Type JM 52 Serial No. 411118 Documentation for this item in part 8
Filter regulator with automatic water separator:	Simatek item No. 20700 / Festo LFR 1/2-D-7-0-MIDI-A Documentation for this item in part 7
Safety switch	Simatek No.60175/Type Schmersal EX-AZ 16-12ZVRK-M20-3D (safety switch) Simatek No.15611/Type Schmersal AZ15/16 B6 (key for safety switch) Documentation for this item in part 7
Differential pressure gauge:	Simatek item No. 31005 / Type HKDPG300mmH2O Documentation for this item in part 7

SimPact® 4T-R Pulse Jet Filter

Specific documentation for S24337-010

Other equipment	
Explosion relief	
Explosion relief:	Simatek item No. 52083 / Type FIKE HI-CV-S-RI DN600 LAF Serial No.: 2469000 Documentation for this item in part 8
Burst sensor:	Simatek item No. - / Type RI Documentation for this item in part 8
Explosion relief location:	Below filter bags
Centrifugal fan	
Centrifugal fan:	Simatek item No. 60108 / Type Ferrari FI 712 N4S Pos. RDO CEMP Motor 22kW 2P 3x400V 50Hz IE3 (ATEX Zone 21) Serial No. 25004670 Documentation for this item in part 8
Silencer	
Silencer:	Simatek item No. 60107 / type Lindab SLGPU 630-900.100 Documentation for this item in part 8

Explosion relief calculated according to	EN14491
P_{stat}	0,10 bar
K_{st}	102 bar·m·s ⁻¹
P_{max}	9,2 bar
$P_{\text{red,max}}$ (Filter pressure-shock resistance)	2,00 bar
Explosion volume filter	12,85 m ³
Total volume filter	21,12 m ³
L/D	2,10
A (Calculated minimum venting area without duct)	0,141 m ²
Vent duct (into open air), max.	3,000 m
A (Calculated minimum venting area with duct)	0,150 m ²
Venting area, explosion relief	0,239 m ²
Duct dimension	DN 600
$F_{\text{R,max}}$ (Recoil force)	33,61 kN
L_{F} (Flame length)	23,42 m
W_{F} (Flame width)	6,56 m

Residual risk – Filter with a standard flame profile according to EN 14491