

1) Family number: 42143216 (US2008220161A)

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Title: METHOD OF AND APPARATUS FOR MAKING A SPUNBOND

Abstract: A spunbond web is made by extruding a multiplicity of hot thermoplastic filaments, passing the filaments along an upstream stretch of a path, cooling and stretching the filaments as they move along the upstream stretch of the path, and depositing the cooled and stretched filaments at a downstream end of the upstream stretch on a foraminous belt such that the filaments form a mat thereon. The belt is continuously displaced the belt so as to move the mat downstream along a downstream leg of the path. The mat on the belt, then consolidated with a high-pressure water-jet treatment, and further processed.

Classifications:**International (IPC 8-9):** B05C11/02 B05D3/12 D01D5/092

D01D5/098 D01D5/12 D04H13/00 D04H3/00 D04H3/02 D04H3/08

D04H3/10 D04H3/11 D04H3/16 D06M11/05 (Advanced/Invention);

D04H3/00 D04H3/08 (Advanced/Non-invention);

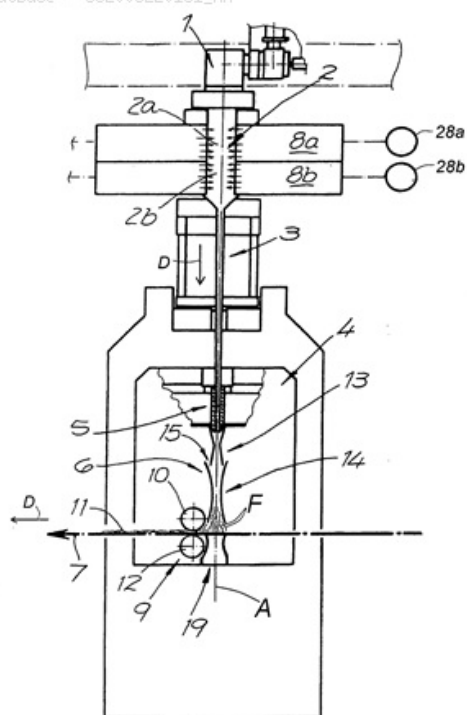
B65H (Subclass/Invention)

International (IPC 1-7): B29C70/10 B29C70/16 D04H3/02 D04H3/16**CPC:** D04H3/10 D04H3/11 D04H3/16**European:** D04H3/10 D04H3/11 D04H3/16**US:** 118/33 118/33S 264/103 264/210.8 264/211.13 264/211.2

264/234 264/555 265/103 265/210.8 265/211.13 265/211.2 265/234

28/104 427/171 427/171P

PatBase - US2008220161_AA

**Family:**

Publication number	Publication date	Application number	Application date
AR065526 AA	20090610	AR2008P100839	20080228
AT466124 E	20100515	AT20070004747T	20070308
BRPI0800455 A	20081021	BR2008PI00455	20080307
BRPI0800455 B1	20180306	BR2008PI00455	20080307
CA2625245 AA	20080908	CA20082625245	20080307
CA2625245 C	20130507	CA20082625245	20080307
CN101260596 A	20080910	CN200810083709	20080307
CN101260596 B	20110608	CN200810083709	20080307
DE502007003585 D1	20100610	DE200750003585T	20070308
DK1967628 T3	20100809	DK20070004747T	20070308
DK1967628 T4	20131028	DK20070004747T	20070308
EP1967628 A1	20080910	EP20070004747	20070308
EP1967628 B1	20100428	EP20070004747	20070308
EP1967628 B2	20130717	EP20070004747	20070308
ES2343547 T3	20100803	ES20070004747T	20070308
ES2343547 T5	20131127	ES20070004747T	20070308
IL189823 A0	20081229	IL20080189823	20080228
IL189823 A1	20111229	IL20080189823	20080228
IN00416KO2008 A	20090417	IN2008KO00416	20080303
IN296719 B	20180518	IN2008KO00416	20080303
JP2008223214 A2	20080925	JP20080057133	20080307
JP5008589 B2	20120822	JP20080057133	20080307
KR101036221 B1	20110520	KR20080021456	20080307
KR20080082523 A	20080911	KR20080021456	20080307
MX2008003204 A1	20090211	MX20080003204	20080306
PL1967628 T3	20101029	PL20070004747T	20070308
PL1967628 T5	20140430	PL20070004747T	20070308
RU2008108854 A	20090920	RU20080108854	20080306
RU2401333 C2	20101010	RU20080108854	20080306
US2008220161 AA	20080911	US20080043283	20080306
US7981357 BB	20110719	US20080043283	20080306

Priority:

EP20070004747 20070308

ES20070004747T 20070308

CA20082625245 20080307

Probable Assignee: FLEISSNER GMBH

Assignee(s): (std): FLEISSNER GMBH ; RAJFENKHOJZER GMBKH U KO MASHINENFABRIK KG ; REIFENHAEUSER GMBH AND CO MASCHF KG ; REIFENHAEUSER GMBH AND CO KG ; RAJFENKHOJZER GMBKH UND KO KG MASHINENFABRIK ; REIFENHAEUSER MASCH ; REIFENHA USER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO MASCHF KG ; REIFENHOUSER GMBH AND CO MASC KG ; REIFENHAUSER GMBH AND CO MASC KG ; REIFENHOUSER GMBH AND CO KG MASC ; REIFENHAUSER GMBH AND CO KG MASC ; REIFENHAUSER GMBH AND CO KG MASCHINENFABRIK ; TRUETZSCHLER NONWOVENS GMBH ; TRA¼TZSCHLER NONWOVENS GMBH

Assignee(s): SOMMER SEBASTIAN ; REIFENHAUSER GMBH AND CO KG MASCH ; REIFENHAEUSER GMBH AND CO KG MAS ; REIFENHAEUSER GMBH and CO KG MASCHINENFABRIK ; REIFENHAEUSER GMBH AND CO MAS KG ; LIEBSCHER WILLI

Inventor(s): (std): ZOMMER SEBAST JAN ; LIBSHER VILLI ; LIBSCHER WILLI ; WILLI LIEBSCHER ; SEBASTIAN SOMMER ; LIEBSCHER WILLI ; SOMMER SEBASTIAN

Inventor(s): ZOMMER SEBAST'JAN

Agent(s): MCFADDEN FINCHAM; MCFADDEN FINCHAM INC; OSLER HOSKIN AND HARCOURT LLP; ROHMANN MICHAEL; LEHMANN MARIA ISABEL; REINHOLD COHN AND PARTNERS; KF ROSS PC; ANDREW

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL PL PT RO RS SE SI SK TR

2) Family number: 41954816 (US2010062672A)

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Title: APPARATUS AND PROCESS FOR THE PRODUCTION OF A NON-WOVEN FABRIC

Abstract: In an apparatus for the production of a non-woven fabric of filaments, where a plurality of filaments are extruded, cooled, stretched and collected on a mobile support, the means of collecting the filaments include furthermore, a gas permeable mobile support element (28), an aspirator (29) and one or more aspiration ducts (33C-36C), the collecting means being insulated from the environment air.

Classifications:

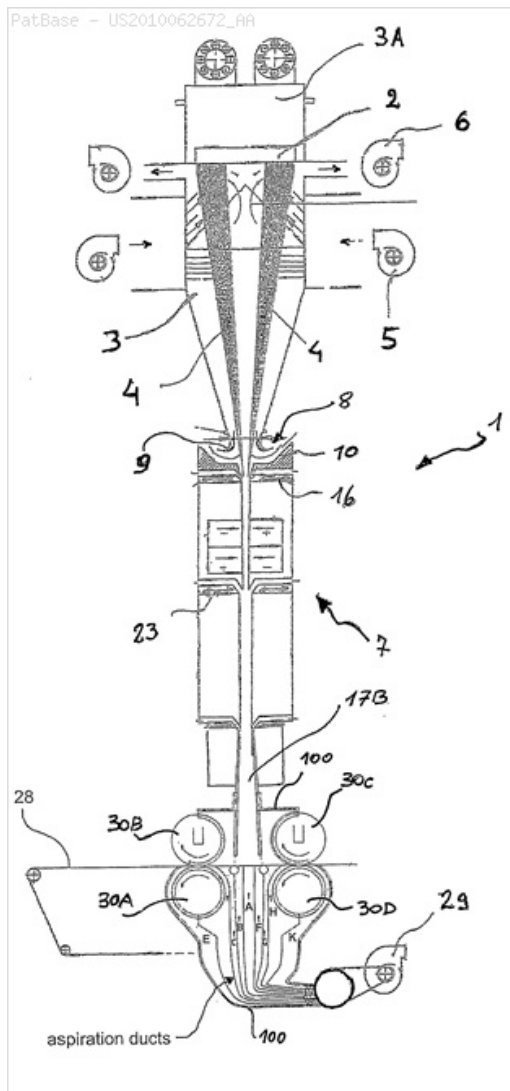
International (IPC 8-9): D01D5/08 D01D5/098 D02G3/44 D02J1/22 D04H3/02 D04H3/16 (Advanced/Invention);

D01D5/08 D02G3/44 D02J1/22 D04H3/02 D04H3/16 (Core/Invention)

CPC: Y10T428/2915 D04H3/16 D01D5/0985 D01D7/00 D04H3/016 D04H3/033 Y10T442/69

European: D01D5/098B D01D7/00 D04H3/016 D04H3/033 D04H3/16

US: 264/103 264/103S 425/66 425/66S 425/72.2 425/83.1 428/365 428/365S 442/409 442/409P



Family:

Publication number	Publication date	Application number	Application date
AT519874 E	20110815	AT20070859069T	20071217
DE602006012527 D1	20100408	DE200660012527T	20061215
DE602007016507 D1	20111020	DE200760016507T	20071217
EP1939334 A1	20080702	EP20060425840	20061215
EP1939334 B1	20100224	EP20060425840	20061215

EP2099958 A1	20090916	EP20070859069	20071217
EP2099958 B1	20110810	EP20070859069	20071217
US2010062672 AA	20100311	US20070516060	20071217
US8591213 BB	20131126	US20070516060	20071217
WO08075176 A1	20080626	WO20071B03944	20071217

Priority:

EP20060425840 20061215 EP20070859069 20071217 WO20071B03944 20071217

Probable Assignee: FARE SPA

Assignee(s): (std): FARE ROSALDO ; FARE SPA

Assignee(s): FARE S P A FAGNOANO OLONA ; FARE S P A ; FARE AND 8242 ROSALDO ; FARE FAGNOANO OLONA SPA

Inventor(s): (std): FARE ROSALDO

Inventor(s): FARE AND 8242 ROSALDO

Agent(s): FRANKE AND PARTNER PATENT U RECHTSANWAELTE INTELLECTUAL PROPERTY LAW FIRM; GISLON GABRIELE; HESS PATENT LAW FIRM PC; ROBERT J; HESS PATENT LAW FIRM LLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 63860497 (US2016312384A)

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Title: METHOD AND APPARATUS FOR MAKING A NONWOVEN FABRIC FROM THERMOPLASTIC FILAMENTS

Abstract: A method of making a spun-bond nonwoven fabric of thermoplastic filaments has the steps of first spinning the thermoplastic filaments, then cooling the spun filaments, and then conducting the cooled and spun filaments in a travel direction through a stretcher with primary air such that the primary air exits a downstream end of the stretcher with the filaments at a predetermined primary air volume/flow VP. The filaments and substantially all of the primary air are passed together as a flow from the downstream end of the stretcher into a diffuser. Secondary air is introduced into the flow at a secondary air volume/flow VS such that a ratio VP/VS of the primary rate VP to the secondary rate is equal to at least 4.5 and the primary and secondary air flow with the filaments in the travel direction through the diffuser.

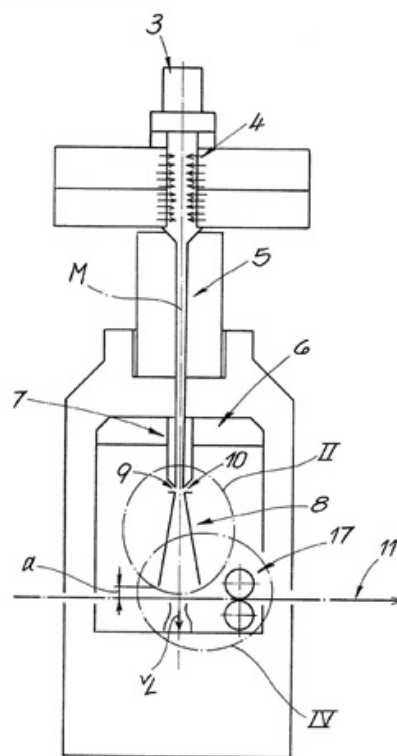
Classifications:

International (IPC 8-9): D01D5/088 D01D5/092 D01D5/098 D01D5/12 D04H13/00 D04H3/007 D04H3/02 D04H3/03 D04H3/10 D04H3/14 D04H3/16 D04H5/00 D06H5/00 (Advanced/Invention); D01D5/00 D01F1/00 D04H3/00 (Core/Invention)

CPC: D10B2321/022 D06H5/00 D04H13/00 D04H3/14 D01D5/088 D01D5/12 D01D5/092 D01D5/0985 D04H3/007 D04H3/02 D04H3/03 D04H3/16

US: 1/1 264/555

PatBase - US2016312384_RH



Family:

Publication number	Publication date	Application number	Application date
AR104414 AA	20170719	AR2016P101178	20160426
BR102016009291 A2	20161101	BR20161009291	20160426
CN106192216 A	20161207	CN201610542713	20160427
CN106192216 B	20180904	CN201610542713	20160427
DE502015001255 D1	20170810	DE201550001255T	20150427
DK3088585 T3	20170925	DK20150165268T	20150427
EP3088585 A1	20161102	EP20150165268	20150427
EP3088585 B1	20170621	EP20150165268	20150427
ES2639234 T3	20171025	ES20150165268T	20150427
IN201634014215 A	20161028	IN201634014215	20160425
KR20160127668 A	20161104	KR20160050726	20160426

MX2016005363 A1	20171024	MX20160005363	20160425
MX358520 B	20180824	MX20160005363	20160425
PL3088585 T3	20171130	PL20150165268T	20150427
RU2633245 C1	20171011	RU20160116403	20160426
SI3088585 T1	20171030	SI20150030096T	20150427
TH174234 A	20180308	TH20161002373	20160426
TR201713585 T4	20171121	TR20170013585T	20150427
US2016312384 AA	20161027	US20160138321	20160426
US9982367 BB	20180529	US20160138321	20160426

Priority:

EP20150165268 20150427 KR20160050726 20160426

Probable Assignee: REIFENHAEUSER GMBH AND COKG MASCHF

Assignee(s): (std): RAJFENKHOJZER GMBKH U KO MASH KG ; REIFENHAEUSER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO MASCHF KG ; REIFENHAEUSER MASCH

Assignee(s): REIFENHAEUSER GMBH CO MASCHF KG ; REIFENHAEUSER GMBH AND COKG MASCHF ; REIFENHAUSER GMBH AND CO KG MASCHINENFABRIK ; RAJFENKHOJZER GMBKH U KO MASHINENFABRIK KG

Inventor(s): (std): GORETZKI FELIX ; SOMMER SEBASTIAN ; OZGOEREN EMIN ; FREY DETLEF ; KLEIN ALEXANDER ; FELIX GORETZKI ; ALEXANDER KLEIN ; DETLEF FREY ; SEBASTIAN SOMMER ; OZGOEREN EMIN ; EMIN OZGREN ; GORETSKI FELIKS ; OZGEREN EMIN ; FREJ DETLEF ; ZOMMER SEBASTYAN ; KLYAJN ALEKSANDR ; OZGOREN EMIN ; EMIN OZGOEREN

Inventor(s): EMIN OZGOREN ; EMIN OZGOEREN

Agent(s): ROHMANN MICHAEL; LEHMANN MARIA ISABEL; OOO SOYUZPATENT; AHMET BASALAN; ANDREW

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

4) Family number: 23173630 (US2002063364A)

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Title: PROCESS AND SYSTEM FOR PRODUCING MULTICOMPONENT SPUNBONDED NONWOVEN FABRICS

Abstract: A system and process is provided for producing spunbond nonwoven fabric. Two or more polymeric components are separately melted and are separately directed through a distribution plate configured so that the separate molten polymer components combine at a multiplicity of spinnerette orifices to form filaments containing the two or more polymer components. Multicomponent filaments are extruded from the spinnerette orifices into a quench chamber where quench air is directed from a first independently controllable blower and into contact with the filaments to cool and solidify the filaments. The filaments and the quench air are directed into and through a filament attenuator and the filaments are pneumatically attenuated and stretched. The filaments are directed from the attenuator into and through a filament depositing unit and are deposited randomly upon a moving continuous air-permeable belt to form a nonwoven web of substantially continuous filaments. Suction air from a second independently controllable blower beneath the air-permeable belt so is drawn through the depositing unit and through the air-permeable belt and web is then directed through a bonder for bonding the filaments to convert the web into a coherent nonwoven fabric.

Classifications:

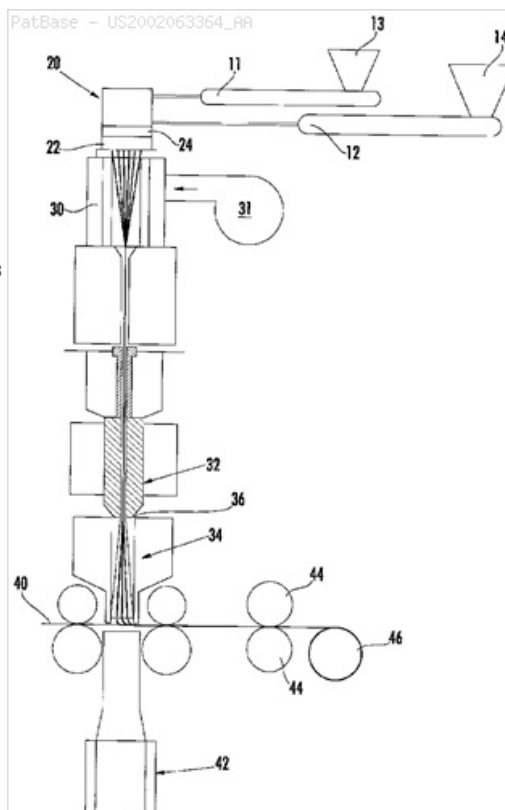
International (IPC 8-9): D01D5/098 D01D5/28 D04H1/00 D04H3/02 D04H3/03 D04H3/14 D04H3/16 (Advanced/Invention); D04H3/16 (Advanced/Non-invention); D04H1/00 D04H3/02 D04H3/14 D04H3/16 (Core/Invention)

International (IPC 1-7): D01D5/098 D01D5/14 D01D5/253 D01D5/28 D01D5/32 D01D5/34 D01D5/36 D01F8/06 D04H1/00 D04H3/00 D04H3/02 D04H3/03 D04H3/10 D04H3/14 D04H3/16

CPC: D04H3/14 D04H3/16

European: D04H3/14 D04H3/16

US: 156/167 156/181 156/441 264/103 264/172.12 264/172.13 264/172.14 264/172.15 264/210.8 264/211.12 264/555 264/571 425/131.5 425/377 425/378.2 425/379.1 425/382.2 425/404 425/463 425/66 425/72.2



Family:

Publication number	Publication date	Application number	Application date
AT288512 E	20050215	AT20010955046T	20010802
AU2001277253 AA	20020218	AU20010277253	20010802
AU2001277253 BB	20050728	AU20010277253	20010802
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AU200177253 A5	20020218	AU20010077253	20010802

BRPI0112929 A	20030624	BR2001PI12929	20010802
CA2417872 AA	20020214	CA20012417872	20010802
CA2417872 C	20070116	CA20012417872	20010802
CN1303275 C	20070307	CN20018016725	20010802
CN1468335 A	20040114	CN20018016725	20010802
CZ20030301 A3	20030813	CZ20030000301	20010802
CZ302192 B6	20101208	CZ20030000301	20010802
DE60108762 D1	20050310	DE20016008762T	20010802
DE60108762 T2	20060112	DE20016008762T	20010802
DK1311718 T3	20050606	DK20010955046T	20010802
EP1311718 A2	20030521	EP20010955046	20010802
EP1311718 B1	20050202	EP20010955046	20010802
ES2236273 T3	20050716	ES20010955046T	20010802
JP2004506100 T2	20040226	JP20020517879T	20010802
JP3725866 B2	20051214	JP20020517879T	20010802
KR100510244 B1	20050825	KR20037001488	20030130
KR20030066587 A	20030809	KR20037001488	20030130
MXPA03001040 A1	20030527	MX2003PA01040	20010802
US2002063364 AA	20020530	US20010921218	20010802
US6737009 BB	20040518	US20010921218	20010802
WO0212604 A2	20020214	WO2001US24364	20010802
WO0212604 A3	20020530	WO2001US24364	20010802

Priority:

US20000222892P 20000803 US20010921218 20010802 WO2001US24364 20010802

Probable Assignee: FIBERWEB HOLDINGS LTD

Assignee(s): (std): ALEXANDER ROBERT C ; BBA NONWOVEN SIMPSONVILLE INC ; BBA NONWOVENS SIMPSONVILLE ; BBA NONWOVENS SIMPSONVILLE INC ; FIBERWEB HOLDINGS LTD ; TAYLOR THOMAS B

Assignee(s): FIBERWEB SIMPSONVILLE INC

Inventor(s): (std): TAYLOR THOMAS B ; ALEXANDER ROBERT C ; TAYLOR B ; ALEXANDER C ; TAYLOR THOMAS B
ALEXANDER ROBE

Inventor(s): THOMAS B TAYLOR ; ROBERT C ALEXANDER

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; PIZZEYS; SIM AND MCBURNEY

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

5) Family number: 41886988 (US2009152757A)

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Title: METHOD AND APPARATUS FOR MAKING A SPUNBOND

Abstract: A method of making a spunbond fleece from continuous filaments wherein at least some of the filaments produced have natural crimp. The filaments are deposited in the deposition station of a conveyor creating a filament mass and the conveyor transports the filament mass toward a consolidating device. A gas stream is produced that flows along the upper surface of the filament mass in the travel direction of the filament mass.

Classifications:

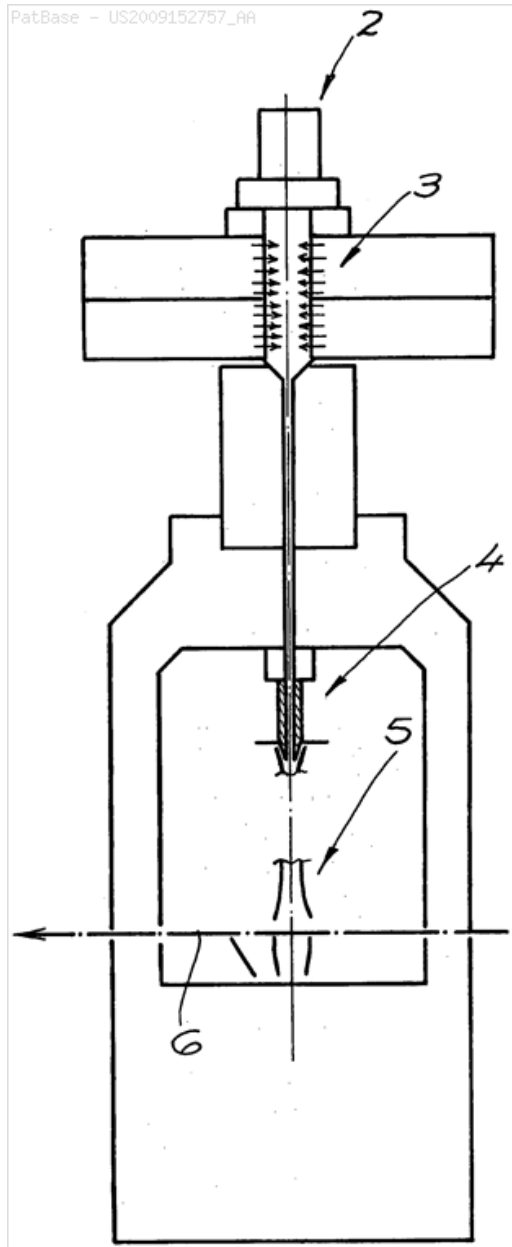
International (IPC 8-9): B28B5/00 D01D5/22 D01F6/62 D02G1/16
D02J1/22 D04H17/00 D04H3/00 D04H3/02 D04H3/08 D04H3/11
D04H3/12 D04H3/14 D04H3/16 (Advanced/Invention);
D04H17/00 D04H3/16 (Advanced/Non-invention);
D04H13/00 (Core/Invention)

International (IPC 1-7): D01D5/08 D04H1/06 D04H1/44 D04H1/50
D04H3/00 D04H3/14 D04H3/16

CPC: D04H3/14 D04H3/16

European: D04H3/14 D04H3/16

US: 1/1 264/168 264/168P 425/72.2 425/72.200S

**Family:**

Publication number	Publication date	Application number	Application date
AR064079 AA	20090311	AR2007P105359	20071130
AT483052 E	20101015	AT20060025192T	20061206
BRPI0704633 A	20080722	BR2007PI04633	20071206
BRPI0704633 B1	20170502	BR2007PI04633	20071206
CA2612854 AA	20080606	CA20072612854	20071128
CA2612854 C	20110920	CA20072612854	20071128
CN101220543 A	20080716	CN200710180098	20071206
CN101220543 B	20110202	CN200710180098	20071206
DE502006007979 D1	20101111	DE200650007979T	20061206
DK1930492 T3	20110110	DK20060025192T	20061206
EP1930492 A1	20080611	EP20060025192	20061206
EP1930492 B1	20100929	EP20060025192	20061206
ES2352508 T3	20110221	ES20060025192T	20061206
IL187752 A0	20080320	IL20070187752	20071129
IL187752 A1	20110228	IL20070187752	20071129
IN01616KO2007 A	20080711	IN2007KO01616	20071129
IN258866 B	20140214	IN2007KO01616	20071129
JP2008144344 A2	20080626	JP20070313481	20071204
JP4827827 B2	20111130	JP20070313481	20071204
KR101031801 B1	20110429	KR20070125390	20071205
KR20080052436 A	20080611	KR20070125390	20071205
MX2007015405 A1	20081028	MX20070015405	20071206
PL1930492 T3	20110331	PL20060025192T	20061206
RU2361974 C1	20090720	RU20070145228	20071205
US2009152757 AA	20090618	US20070998444	20071129
US9453292 BB	20160927	US20070998444	20071129

Priority:

EP20060025192 20061206

CA20072612854 20071128

Probable Assignee: REIFENHAUSER GMBH AND CO MASCHF KG
Assignee(s): (std): FREY WILHELM ; RAJFENKHOJZER GMBKH U KO KG ; RAJFENKHOJZER GMBKH UND KO KG ; REIFENHAUSER GMBH AND CO MASCHF KG ; REIFENHAEUSER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO MASC KG ; REIFENHAEUSER GMBH AND CO KG ; REIFENHAUSER GMBH AND CO KG MASC ; REIFENHAUSER GMBH AND CO KG MASCHINENFABRIK ; REIFENHAEUSER MASCH ; REIFENHOUSER GMBH AND CO MASC KG ; REIFENHOUSER GMBH AND CO KG MASC ; SOMMER SEBASTIAN
Assignee(s): REIFENHOUSER GMBH AND CO KG MASCHINENFABRIK ; REIFENHAEUSER GMBH AND COKG MASCHF ; REIFENHOUSER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO KG MASCH ; REIFENHAEUSER GMBH AND CO KG MAS ; REIFENHAEUSER GMBH and CO KG MASCHINENFABRIK ; REIFENHAEUSER GMBH AND CO MAS KG ; RAJFENKHOJZER GMBKH UND KO KG MASHINENFABRIK ; RAJFENKHOJZER GMBKH U KO MASHINENFABRIK KG
Inventor(s): (std): SOMMER SEBASTIAN ; FREY WILHELM ; ZOMMER SEBAST JAN ; FREJ VIL KHEL M ; WILHELM FREY ; SEBASTIAN SOMMER
Inventor(s): ZOMMER SEBAST'JAN ; FREJ VIL'KHEL'M
Agent(s): MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; ROHMANN MICHAEL ET AL; ROHMANN MICHAEL; REINHOLD COHN AND PARTNERS; KF ROSS PC; ANDREW
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO RS SE SI SK TR

6) Family number: 71384815 (US2018282926A)

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Title: APPARATUS FOR MAKING SPUNBOND FROM CONTINUOUS FILAMENTS

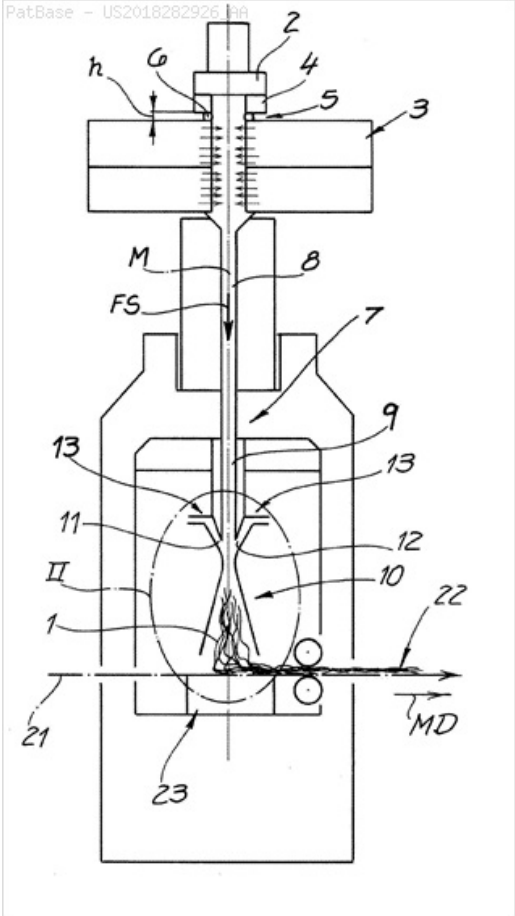
Abstract: An apparatus for making spunbond from continuous thermoplastic filaments has a spinneret for spinning the continuous filaments and advancing them in a filament-travel direction, a cooler for cooling the filaments, a stretcher for stretching the filaments, a depositing device including a foraminous belt extending in a machine direction transverse to the filament-travel direction for deposition of the filaments as a nonwoven web and conveyance away from the stretcher, a diffuser between the stretcher and the foraminous belt so that filaments and primary air from the stretcher enter into the diffuser, and a suction device for extracting air through the foraminous belt at an extraction region underneath the diffuser outlet and having a width b in a machine direction that is greater than a width B of the diffuser outlet. The diffuser forms upstream and downstream secondary air-inlet gaps at opposite ends through which secondary air is aspirated into the diffuser.

Classifications:

International (IPC 8-9): C08J5/00 D01D10/02 D01D5/08 D01D5/088 D01D5/092 D01D5/098 D01D5/12 D02J1/22 D02J13/00 D03D1/00 D04H D04H1/00 D04H1/54 D04H1/56 D04H17/00 D04H3/005 D04H3/02 D04H3/033 D04H3/10 D04H3/16 (Advanced/Invention); D01D5/00 D04H3/00 (Core/Invention)

CPC: D04H17/00 D02J1/22 D02J13/00 D04H3/10 D04H3/033 D04H1/54 D04H1/56 D01D5/092 D01D5/0985 D01D7/00 D04H3/005 D04H3/02 D04H3/16 D01D4/02 D01D5/098 D03D1/00

US: 1/1 425/72.2



Family:

Publication number	Publication date	Application number	Application date
AR111445 AA	20190717	AR2018P100736	20180327
BR102018006571 A2	20181121	BR20181006571	20180329
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CN108691097 A	20181023	CN201810295003	20180330
CO20180003214 A1	20190329	CO20180003214	20180323
DE502017002119 D1	20190919	DE201750002119T	20170331
DK3382081 T3	20191111	DK20170164375T	20170331
EP3382081 A1	20181003	EP20170164375	20170331
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JP2018172841 A2	20181108	JP20180063809	20180329
KR201801111576 A	20181011	KR20180035044	20180327
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RU2018111083 A	20191002	RU20180111083	20180328
RU2018111083 A3	20191002	RU20180111083	20180328
RU201804908 C2	20191031	RU20180111083	20180328
SI3382081 T1	20200131	SI20170030134T	20170331
TR201916388 T4	20191121	TR20190016388T	20170331
US2018282926 AA	20181004	US20180939753	20180329
ZA201801818 A	20190130	ZA20180001818	20180319

Priority:

EP20170164375 20170331 KR20180035044 20180327 RU20180111083 20180328
JP20180063809 20180329

Probable Assignee: REIFENHAEUSER GMBH AND CO MASCHF KG

Assignee(s): (std): REIFENHAEUSER GMBH AND CO MASCHF KG ; REIFENHAUSER GMBH AND CO MASCHF KG ; REIFENHAEUSER MASCH

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Inventor(s): ZOMMER SEBASTYAN ; NOENKHOFFER MARTIN ; FREY DETLEF

Agent(s): OSLER HOSKIN AND HARCOURT LLP; ANDREJEWSKI HONKE PATENT U RECHTSANWAELTE PARTNERSCHAFT MBB; ROHMANN MICHAEL; IR YUSWO TIRTO WIDJOJO; SOYUZPATENT SB FELTSINOJ OOO; ESER SIPAHIOGLU

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

7) Family number: 53536084 (US2013099409A)

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Title: APPARATUS AND METHOD FOR GUIDING AND DEPOSITING SYNTHETIC FIBERS TO FORM A NONWOVEN WEB

Abstract: An apparatus and a method for guiding and depositing synthetic fibers to form a nonwoven web is described. The apparatus has a drawing device, a deposit belt, and a plurality of guidance means disposed between the drawing device and the deposit belt, which form in pairs numerous merging guidance pathways for the guidance of a fiber curtain formed by the fibers. The guidance means have numerous air intake slits beneath the drawing device, which enable an introduction of a secondary airstream. Numerous air conducting elements disposed on one of the guidance means are associated with at least one of the air intake slits. In this manner at least one of the sub-streams of the secondary airstream laterally adjacent to the fiber curtain can be introduced to the fiber stream at an inflow angle that is at a right angle to the deposit belt.

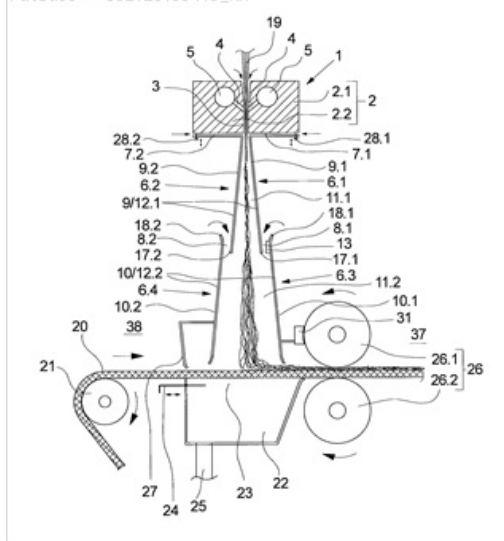
Classifications:

International (IPC 8-9): D01D5/092 D01D5/098 D04H1/724 D04H1/732 D04H1/736 D04H3/02 D04H3/03 D04H3/033 D04H3/14 D04H3/16 (Advanced/Invention)

CPC: D01D7/00 D01D5/0985 D04H3/03 D04H3/16

US: 264/115 425/83.1

PatBase - US2013099409_AA



Family:

Publication number	Publication date	Application number	Application date
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CN103061044 B	20170301	CN201210403061	20121022
DE102011119112 A1	20130523	DE201110119112	20111122
DE502012009274 D1	20170302	DE201250009274T	20121009
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JP2013087412 A2	20130513	JP20120232774	20121022
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KR101927540 B1	20181210	KR20120116637	20121019
KR20130044179 A	20130502	KR20120116637	20121019
US2013099409 AA	20130425	US20120656835	20121022
US8992810 BB	20150331	US20120656835	20121022

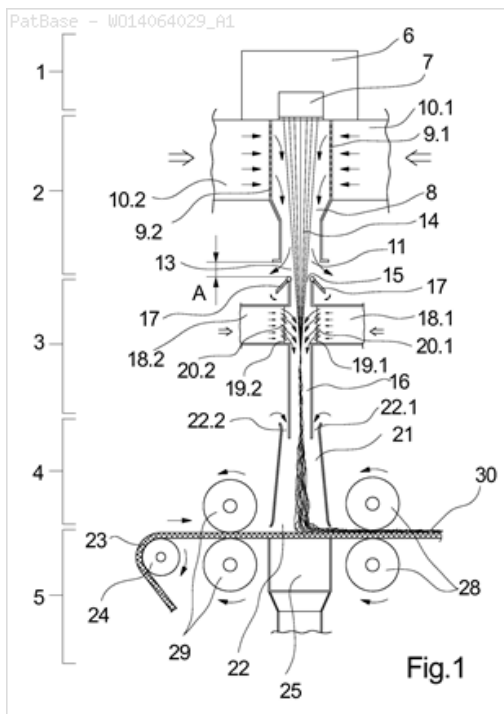
Priority:

Probable Assignee: OERLIKON TEXTILE GMBH AND CO KG**Assignee(s):** (std): OERLIKON TEXTILE AND GMBH AND CO KG ; OERLIKON TEXTILE GMBH AND CO KG**Inventor(s):** (std): LEIS HERMANN ; ENGEL FABIAN ; SCHUETT GUENTER ; POTRATZ BERNHARD ; LEIS HERMAN ;
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BRINKS GILSON AND LIONE; G PETER**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO
PL PT RO RS SE SI SK SM TR**8) Family number: 56338394 (WO14064029A1)**

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Title: DEVICE FOR PRODUCING A SPUN-BONDED FLEECE

Abstract: A device for producing a spun-bonded fleece from synthetic filaments is described. The device has a spinning device, a cooling device, a stretching device, a guiding device and a stacking device. A cooling shaft of the cooling device, a processing shaft of the stretching device and a diffuser of the guiding device for guiding the filaments interact, wherein a cooling air is fed to the cooling shaft and a process air is fed separately to the processing shaft. In order to make possible a separation of the cooling air from the process air and obtain an even guiding of the filaments, according to the invention a short free path is formed between a filament outlet of the cooling shaft and a filament inlet of the process shaft in which the cooling air can be removed into the surroundings.

Classifications:**International (IPC 8-9):** D01D5/088 D04H3/03 (Advanced/Invention)**CPC:** D04H3/03 D01D5/092 D01D13/02 D01D5/088**Family:**

Publication number	Publication date	Application number	Application date
CN104755667 A	20150701	CN201380055523	20131021
CN104755667 B	20161109	CN201380055523	20131021
DE502013006823 D1	20170511	DE201350006823T	20131021
EP2912222 A1	20150902	EP20130779585	20131021
EP2912222 B1	20170329	EP20130779585	20131021
WO14064029 A1	20140501	WO2013EP71924	20131021

Priority:

DE201210021140 20121027

EP20130779585 20131021

WO2013EP71924 20131021

Probable Assignee: OERLIKON TEXTILE GMBH AND CO KG**Assignee(s):** (std): OERLIKON TEXTILE GMBH AND CO KG**Inventor(s):** (std): SCHUETT GUENTER ; SCHUTT GUNTER**Agent(s):** KNH PATENTANWALTE NEUMANN HEINE TARUTTIS PARTNERSCHAFTSGESELLSCHAFT MBB; NEUMANN
DITMAR**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID
IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN
MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG
SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**9) Family number: 14318874 (US5766646A)**

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Title: Apparatus for making a fleece from continuous thermoplastic filaments

Abstract: A fleece-making apparatus has a vertically extending and horizontally elongated process shaft having upper and lower ends, a nozzle head at the upper shaft end for emitting a multiplicity of continuous thermoplastic strands that descend

in the shaft as a curtain, and a foraminous conveyor belt at the lower shaft end for receiving and conveying away the filaments. A main stream of air flows downward in the shaft from the upper shaft end to the lower shaft end and through the belt for cooling and stretching the filaments and depositing the filaments on the belt. A pair of horizontally elongated and downwardly open second inlet slots flank the curtain of filaments below the upper shaft end, a pair of horizontally elongated third inlet slots flank the curtain of filaments below the second slots, and a pair of horizontally elongated third outlet slots flank the curtain of filaments below the third inlet slots and above the lower end. A controller including at least one blower connected to the slots directs second streams of air downward into the shaft from the second inlet slots, introduces third streams of air into the shaft through the third slots, and withdraws air from the passage through the third outlet slots for looping the cooled and stretched filaments prior to deposition on the belt.

Classifications:

International (IPC 8-9): D01D11/02 D01D5/098 D04H3/02 D04H3/03 D04H3/16 (Advanced/Invention);

D01D11/00 D01D5/08 D04H3/02 D04H3/16 (Core/Invention)

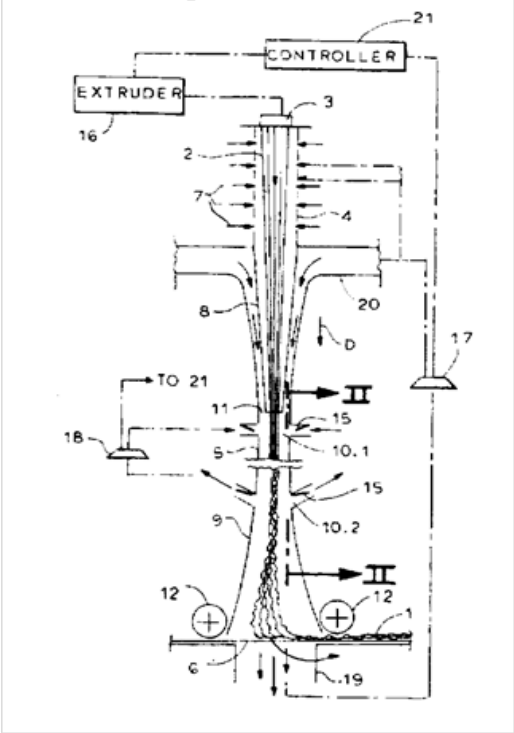
International (IPC 1-7): D01D11/02 D01D5/092 D01D5/098 D04H3/02 D04H3/03

CPC: D04H3/16

European: D04H3/16

US: 264/168 264/210.8 425/72.2 425/722

PatBase - US5766646_A



Family:

Publication number	Publication date	Application number	Application date
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DE19521466 C2	19990114	DE19951021466	19950613
IT1283007 B1	19980403	IT1996MI00970	19960514
ITMI960970 A0	19960514	IT1996MI00970	19960514
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JP3135498 B2	20010213	JP19960100447	19960422
JP9095854 A2	19970408	JP19960100447	19960422
US5766646 A	19980616	US19960659039	19960603

Priority:

DE19951021466 19950613

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Assignee(s): REIFENHAUSER GMBH AND CO MASCH ; REIFENHAUSER GMBH AND CO MASCHINENFABRIK ; REIFENHAEUSER GMBH AND CO MASCHINENFABRIK 53844 TR ; REIFENHAEUSER GMBH AND CO MASCHINENFABRIK ; REIFENHAEUSER GMBH AND CO MASCHINENFABRIK 53844 TROISDORF DE ; REIFENHAUSER GMBH AND CO MASCHF ; REIFENHAEUSER GES MIT BESCHRANKTER HAFTUNG AND COMP MASCHF ; REIFENHAEUSER GESELLSCHAFT MIT BESCHRANKTER HAFTUNG AND COMPAGNIE MASCHINENFABRIK ; REIFENHAEUSER GMBH AND CO MAS FAB

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Inventor(s): FREY DETLEF 53844 TROISDORF DE ; GEUS HANS GEORG 53539 NIEDERKASSEL DE ; KUNZE BERND DR 53773 HENNEF DE