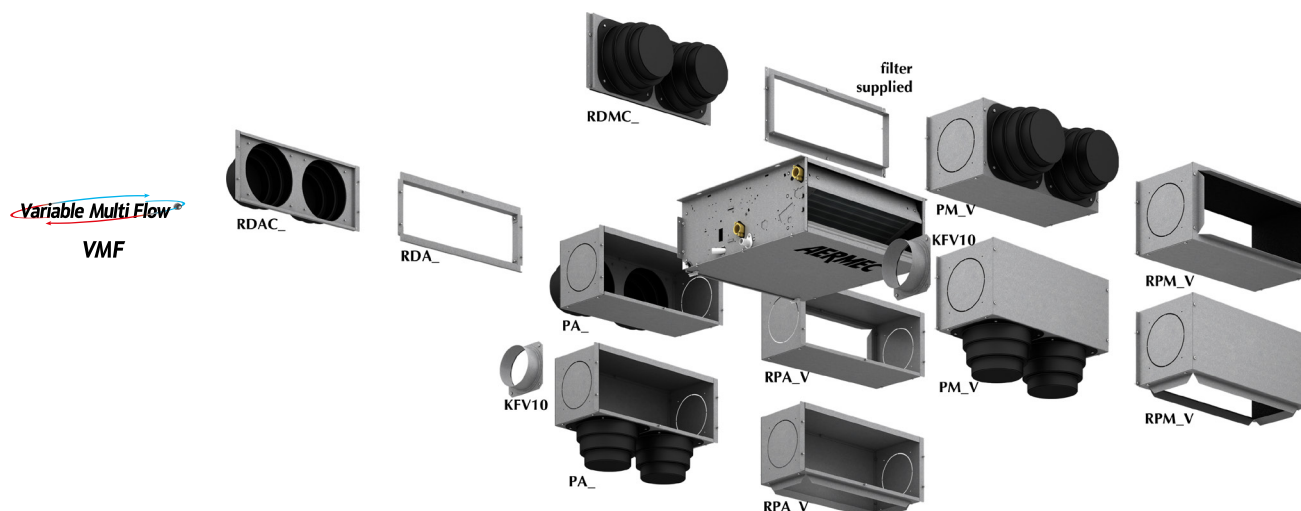


# VES

**Fan coil unit**  
**For ducted installations**  
**Cooling capacity from 1,82 to 5,70kW**  
**Heating capacity from 1,25 to 10,95kW**



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **HEAT EXCHANGER DEVELOPED TO OPTIMIZE THE PERFORMANCE SENSITIVE**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**

## Features

Ducted fan coil, for heating, cooling and dehumidifying, specific to work in sensible environment. The fan unit at available working pressures, trough internal insulation, ensure excellent acoustic comfort levels.

The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.

The main coil, reversible during installation, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

- Main standard coil or increased for 2-pipe systems
- Main standard coil and additional heating coil (accessory) for 4-pipe system
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

## Accessories

### Ducting accessories

**Plenum in galvanised sheet steel and connections:**

- **RDA\_V**: Straight intake connection with rectangular flange.
- **RDAC\_V**: Straight intake connection with circular flanges.
- **RPA\_V**: Intake plenum with rectangular flange.
- **RDMC\_V**: Straight discharge with circular flanges. Internally insulated.
- **PA\_V**: Intake plenum with circular flanges.

Flanges in plastic material.

- **RPM\_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM\_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KRV10**: Circular flanges kit for intake/discharge plenum.

### Discharge and intake grilles:

- **GA**: Intake grille with fixed louvres.
- **GAF**: Intake grille with fixed louvres with filter.

- **GM**: Discharge grille with adjustable louvres.
- **SE**: External air damper with manual control.

### Installation accessories

- **AMP**: Hanging kit.
- **BC**: auxiliary condensate drain tray.
- **DSC4**: Condensate pump to overcome lifts.
- **ZX**: Feet for recessed installation.

### HEATING ONLY COIL

- **BV**: 1 row heating only coil.

### WATER VALVES

**For main coil, 230V~50 Hz / 24V~50 Hz**

- **VCF43 / 4324:** Kit composed of 3-way motorised valve with insulating casing, connections and insulated copper tubes.
- **VCFD3 / 324:** Kit composed of 2-way motorised valve with insulating casing, connections and insulated copper tubes.

**For heating only coil, 230V~50 Hz / 24V~50 Hz**

- **VCF45 / 4543:** Kit composed of 3-way motorised valve, with connections and insulated copper tubes.
- **VCFD4 / 424:** Kit composed of 2-way motorised valve, with connections and insulated copper tubes.
- **VCF3X4:** Valve kit for 4 pipe systems and fan coil units with single coil and 2 connections.  
Kit composed of special 3 way motorised valve with insulating casing, connections and insulated copper tubes. Version VCF3X4L for left hand connection fan coils.

Version VCF3X4R for right hand connection fan coils.  
Power supply 230V ~ 50Hz.

**Control Panels**

The complete characteristics of the control panels are described in the dedicated files.  
Some control panels require combination with other accessories; consult the relevant documentation.

**Accessories to combine to control panels**

- **SIT 3 - 5:** Thermostat Interface Boards. Allows networking of fan coil units (10 max) controlled by a central panel (switch or thermostat).  
SIT3: Controls the 3 speeds of the fan and must be installed on each fan coil unit on the network; receives controls from the switch or the SIT5 board.  
SIT5: Thermostat interface board. Allows a network of VED units (3 max) controlled by a single panel PXAE.

- **SW3:** Water temperature sensor for control panel PXAE.
- **SWA:** Air and water temperature sensor for control panel FMT21.

**Variable multi flow system (VMF)**

The complete characteristics of the VMF system are described in the dedicated files.  
Some VMF components require combination with other accessories; consult the relevant documentation.

Mod.VED	030	040	130	140	230	240	330	340
RDA000V	.	.						
RDA100V			.	.				
RDA200V					.	.		
RDA300V							.	.
RPA000V ***	.	.						
RPA100V ***			.	.				
RPA200V ***					.	.		
RPA300V ***							.	.
RDAC000V	.	.						
RDAC100V			.	.				
RDAC200V					.	.		
RDAC300V							.	.
PA000V ***	.	.						
PA100V ***			.	.				
PA200V ***					.	.		
PA300V ***							.	.
PM000V ***	.	.						
PM100V ***			.	.				
PM200V ***					.	.		
PM300V ***							.	.
RPM000V ***	.	.						
RPM100V ***			.	.				
RPM200V ***					.	.		
RPM300V ***							.	.
RDMC000V	.	.						
RDMC100V			.	.				
RDMC200V					.	.		
RDMC300V							.	.
BV030	.							
BV130			.					
BV230					.			
BV162							.	
KFV10	.	.	.	.	.	.	.	.
VMF-EO	.	.	.	.	.	.	.	.
VMF-E1	.	.	.	.	.	.	.	.
VMF-SW	.	.	.	.	.	.	.	.
VMF-SW1	.	.	.	.	.	.	.	.
VMF-E4/E4D	.	.	.	.	.	.	.	.
VMF-E5N/E5B	.	.	.	.	.	.	.	.
FMT10	.	.	.	.	.	.	.	.
FMT21	.	.	.	.	.	.	.	.

\* The valve kits VCF and the drain pan BC4 cannot be installed together on the same fan coil unit.

\*\* The accessory DSC4 is not compatible with AMP and BC4 - BC6 - BC9.

\*\*\* All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed and used with accessories.

TPF	.	.	.	.	.	.	.	.
Mod.VED	030	040	130	140	230	240	330	340
SWA	.	.	.	.	.	.	.	.
KTLP	.	.	.	.	.	.	.	.
PX	.	.	.	.	.	.	.	.
PX2 - PX2C6	.	.	.	.	.	.	.	.
PXAR	.	.	.	.	.	.	.	.
PXAE	.	.	.	.	.	.	.	.
WMT05	.	.	.	.	.	.	.	.
WMT06	.	.	.	.	.	.	.	.
WMT10	.	.	.	.	.	.	.	.
SW3	.	.	.	.	.	.	.	.
SIT3	.	.	.	.	.	.	.	.
SIT5	.	.	.	.	.	.	.	.
VCF43-4324 *	.	.	.	.	.	.	.	.
VCF45-4524 *	.	.	.	.	.	.	.	.
VCFD3-324 *	.	.	.	.	.	.	.	.
VCFD4-424 *	.	.	.	.	.	.	.	.
VCF3X4R	.	.	.	.	.	.	.	.
VCF3X4L	.	.	.	.	.	.	.	.
AMP	.	.	.	.	.	.	.	.
BC4 * / **	.	.	.	.	.	.	.	.
BC6 **	.	.	.	.	.	.	.	.
BC9 **	.	.	.	.	.	.	.	.
DSC4 **	.	.	.	.	.	.	.	.
GA22	.	.						
GA32			.	.				
GA42					.	.		
GA62							.	.
GAF22	.	.						
GAF32			.	.				
GAF42					.	.		
GAF62							.	.
GM22	.	.						
GM32			.	.				
GM42					.	.		
GM62							.	.
SE20X ****	.	.						
SE30X ****			.	.				
SE40X ****					.	.		
SE80X ****							.	.
ZX7	.	.	.	.	.	.		
ZX8							.	.

All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

\*\*\*\* Accessories SE must be combined with the feet ZX.

Technical data

ES			30			40			130			140			230			240			330			340																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Heating capacity (70°C)		(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Water flow rate		(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	721																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure drops		(1)	kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Heating capacity (50°C)		(2)	kW	2,22	2,03	1,09	2,36	2,15	1,42	3,79	3,52	2,65	3,96	3,67	2,72	4,31	3,92	3,22	4,77	4,30	3,49	6,33	5,63	4,71	6,60	6,04	5,01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Water flow rate		(2)	l/h	383	350	189	406	370	245	660	612	461	682	632	469	743	674	555	820	741	602	1090	969	810	1136	1039	862																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure drops		(2)	kPa	13	10	4	17	14	6	39	34	20	25	22	13	54	44	39	48	38	26	22	18	13	45	39	32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Total cooling capacity		(3)	kW	1,91	1,75	1,25	2,75	1,89	1,30	3,11	2,87	2,20	3,30	3,08	2,43	3,95	3,57	2,85	4,08	3,76	3,40	5,36	4,82	4,00	5,71	5,12	4,46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Sensible cooling capacity		(3)	kW	1,36	1,24	0,88	1,46	1,32	0,86	2,34	2,17	1,59	2,38	2,21	1,68	2,90	2,62	2,13	3,01	2,73	2,35	3,85	3,44	2,85	4,09	3,66	3,18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Water flow rate		(3)	l/h	330	302	215	360	325	224	535	496	379	569	530	419	679	614	491	702	646	584	922	829	689	982	880	768																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Pressure drops		(3)	kPa	24	21	11	36	30	15	56	49	30	29	25	17	101	85	57	56	48	40	30	25	18	50	41	32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Fan		tipo/n°		centrifugo/1			centrifugo/1			centrifugo/2			centrifugo/2			centrifugo/2			centrifugo/2			centrifugo/2			centrifugo/3			centrifugo/3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Air flow rate		m³/h		285			256			161			277			249			160			434			397			287			420			386			280			590			524			417			570			509			406			805			704			572			775			685			563																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
High static pressure		Pa		61			50			21			61			50			21			60			50			26			60			50			26,4			64			50			32			63			50			32			66			50			33			64			50			34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Sound power level (inle+radiator)		(4)		dB(A)			54			52			44			54			52			44			55			53			47			55			53			47			57			54			49			57			54			49			58			55			38			58			55			38																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Sound power level (outlet)				dB(A)			50			48			40			50			48			40			50			48			42			50			48			42			52			49			44			54			51			34			54			51			34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Standard coil		Ø		3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		

VES		30+BV030			130+BV130			230+BV230			330+BV162				
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L		
Heating Performance															
4 pipe configuration															
Heating capacity (70°C)		(1)	kW	2,22	2,08	1,59	3,78	3,60	2,95	4,49	4,17	3,68	5,89	5,50	4,90
Water flow rate		(1)	l/h	195	183	139	332	315	258	394	366	322	516	482	429
Pressure drops		(1)	kPa	8	7,4	3	28	25	17	16	12	8	26	23	19
Cooling Performance															
Total cooling capacity		(3)	kW	1,91	1,75	1,25	3,04	2,81	2,16	3,90	3,50	2,81	5,27	4,76	3,97
Sensible cooling capacity		(3)	kW	1,36	1,24	0,88	2,29	2,12	1,55	2,86	2,57	2,10	3,79	3,40	2,83
Water flow rate		(3)	l/h	330	302	215	524	485	372	671	602	485	908	820	684
Pressure drops		(3)	kPa	24	21	11	54	47	29	99	82	55	30	25	18
Fans															
Fan		tipo/n°	centrifugo/1			centrifugo/2			centrifugo/2			centrifugo/3			
Air flow rate		m³/h	280	250	160	423	388	280	582	513	412	790	695	568	
High static pressure		Pa	61	50	21	60	50	26	64	50	32	66	50	33	
Sound data															
Sound power level (inle+radiator)		(4)	dB(A)	54	52	44	55	53	47	57	54	49	58	55	38
Sound power level (outlet)			dB(A)	50	48	40	50	48	42	52	49	44	54	51	34
Diameter connections															
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"			
Electrical Features															
Absorbed power		W	59	38	23	76	53	34	93	57	43	104	75	63	
Max. input current		A	0,37			0,41			0,58			0,66			
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V3	V1	V7	V3	V1	
Power supply		V/ph/Hz	230V~50Hz												

H max. speed; M med.speed; L min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

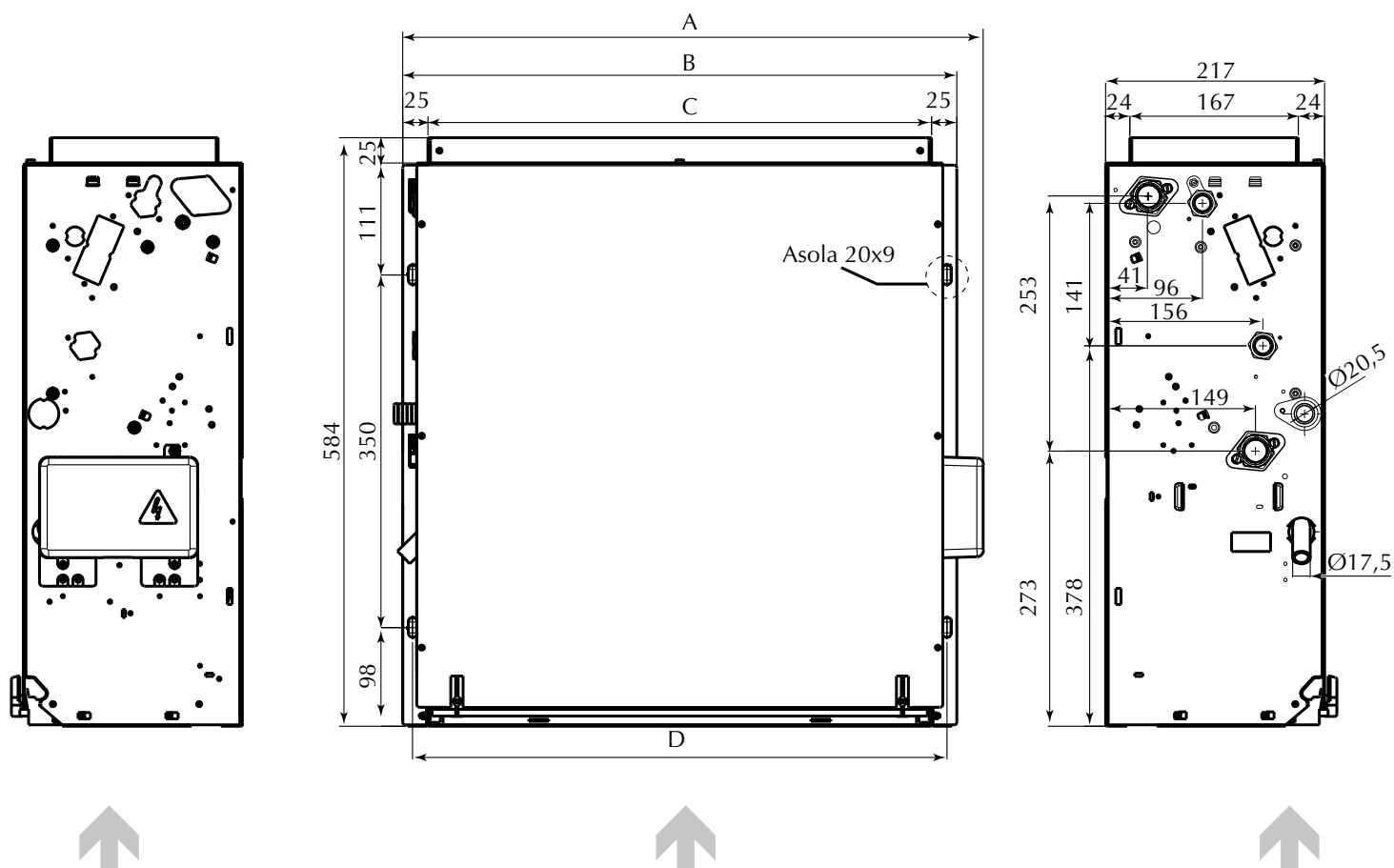
(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensions and weight

VES: 030 - 040 - 130 - 140 - 230 - 240 - 330 - 340



VES		030	040	130	140	230	240	330	340
A	mm	576	576	807	807	1027	1027	1148	1148
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	500	500	731	731	951	951	1072	1072
D	mm	530	530	761	761	981	981	1102	1102
Weight	Kg	20	21	23	24	29,5	32	32,5	34