

Rev. 03/2023

MULTIMIX DN32

Booster module.

MULTIMIX DN32

Booster module.



Combined and modular distribution system

Manifold, separator, connection pipes and booster unit thermally insulated with EPP 40 g/l shells

Hydraulic connections simplified and seals ensured by flat stops

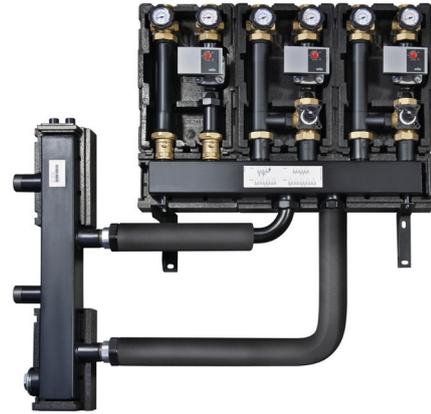
Rationalisation of space in boiler room

Set up for installation of one or more temperature control units for shifting temperature mixing unit

Up to 5 thermal zones

High flow rates

Possibility of direct metering to divide consumptions (only with DN25 booster unit)



DESCRIPTION

MULTIMIX DN32 is a hydronic system used in the distribution and management of zone system utilities both for winter heating and summer cooling. It consists of a hydraulic separator and a distribution manifold (from 2 to 5 zones) connected one to another by pre-insulated pipes and relative booster units, available in two versions:

- **RD:** Direct booster unit (without mixing, for zones supplied with water at the same temperature(*) as the water produced by the heat generator).

- **RM MIX:** Modulating mixed booster unit (shifting temperature). Can be coupled to different electric rotary actuator modules, chosen depending on the type of temperature control selected.

In addition, DN25 booster units designed for metering are available, requiring a specific reducer for connection to the MULTIMIX C32 manifold.

(*) minus the natural "thermal drop" on the hydraulic separator.

PRODUCTION RANGE

Product	Code	Description
	3219.07.02	Hydraulic separator MULTIMIX S32 DN32
	3222.07.02	Insulated connection pipe kit to connect Multimix S32 vertical separator and Multimix C32 zone manifold (2 - 3-way branches)
	3222.07.12	Insulated connection pipe kit to connect Multimix S32 vertical separator and Multimix C32 zone manifold (4 - 5-way branches)
	3223.07.02	Multimix C32 zone manifold - 2 branches
	3224.07.02	Multimix C32 zone manifold - 3 branches
	3225.07.02	Multimix C32 zone manifold - 4 branches
	3226.07.02	Multimix C32 zone manifold - 5 branches
	3227.00.02	Wall bracket kit for Multimix C32 zone manifold
	3228.07.02	Direct booster unit RD DN32
	3229.07.02	Mixing unit RM MIX DN32 (sliding temperature)
	3234.06.02	Direct booster unit, set up for heat metering, RD25 COUNT
	3235.06.10	Mixing unit, prearranged for heat metering, RF25 CONT A.T. (high temperature) **
	3236.06.02	Mixing unit, prepared for heat metering, RM25 CONT (sliding temperature)

* Supply including thermostatic head, model TL50 – Temperature adjustment range 25÷52 °C

** Supply including thermostatic head, model TL70S – Temperature adjustment range 40÷70 °C

ACCESSORIES AND SPARE PARTS

Product	Code	Description
	3232.00.02	Electric rotary actuator - NR 230V - 3 points - 120s - 5Nm (*)
	3232.00.12	Rotary electric servo - NR 24V - 3 Points - 120s - 5Nm (*)
	3232.00.22	Electric rotary actuator - NR 24V - 0÷10V - 120s - 5Nm (*)
	3233.00.02	Self-adjusting electric rotary actuator - 230V - 120s - 6Nm (*)
	3237.06.02	Pair of reduction fittings for connection of DN25 units on DN32 manifold (accessory for series 3234 - 3235 - 3236 units)

* accessory for series 3229 - 3236 units

CONSTRUCTION FEATURES

Manifold body	Water-painted steel
Insulation shell	EEP density 40 g/l
Generator-side connections	G 1"1/2 M

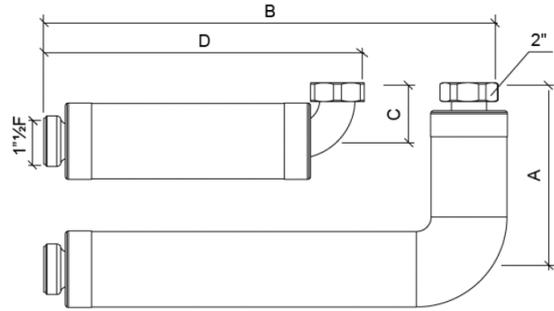
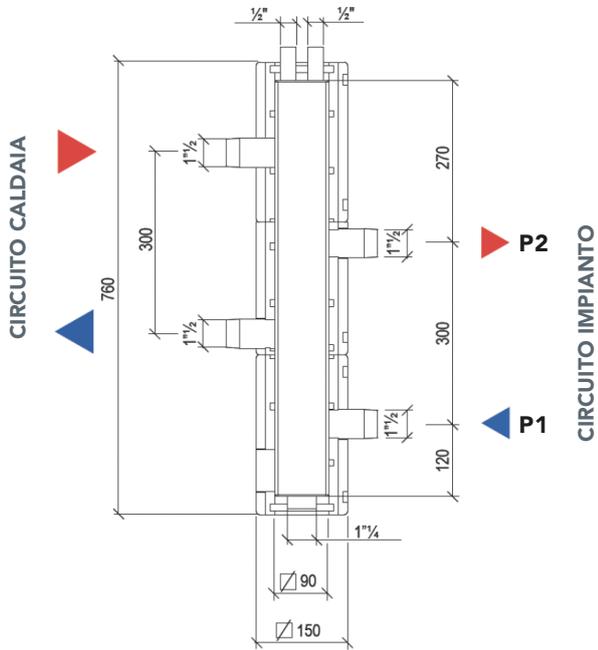
TECHNICAL FEATURES

Allowed fluid	Water Water + glycol 30%
Maximum operating temperature (system)	+ 100 °C
Minimum temperature in cooling mode	+ 11 °C
Maximum working pressure	6 Bar

DIMENSIONAL FEATURES

HYDRAULIC SEPARATOR SERIES 3219

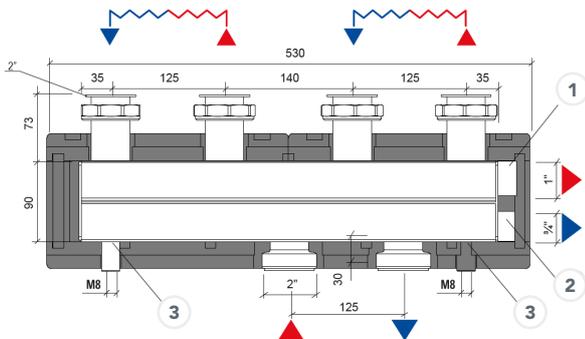
CONNECTION KIT SERIES 3222



Code	Banches	A [mm]	B [mm]	C [mm]	D [mm]
3222.07.02	2-3	370	577,5	70	452,5
3222.07.12	4-5	370	842,5	70	717,5

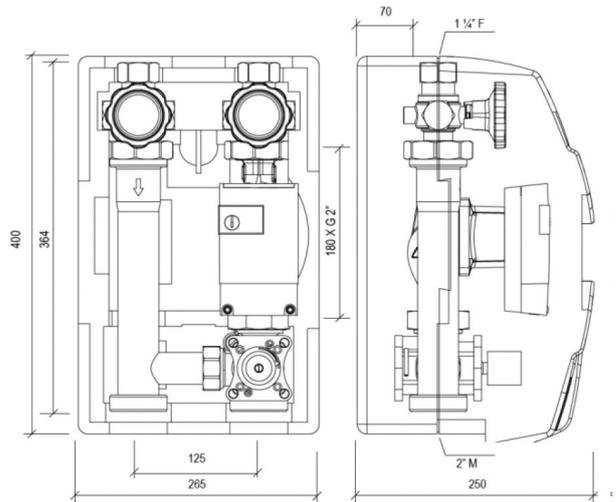
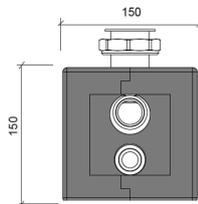
MANIFOLD SERIES 3223 COMBINED WITH GAUGED FITTING ACCESSORIES SERIES 3230 / MINIPUMP SERIES 3231

BOOSTER/MIXING UNIT SERIES 3228-3229



KEY

- 1 Safety group connection (flow)
- 2 Expansion vessel connection (return)
- 3 Wall bracket connections



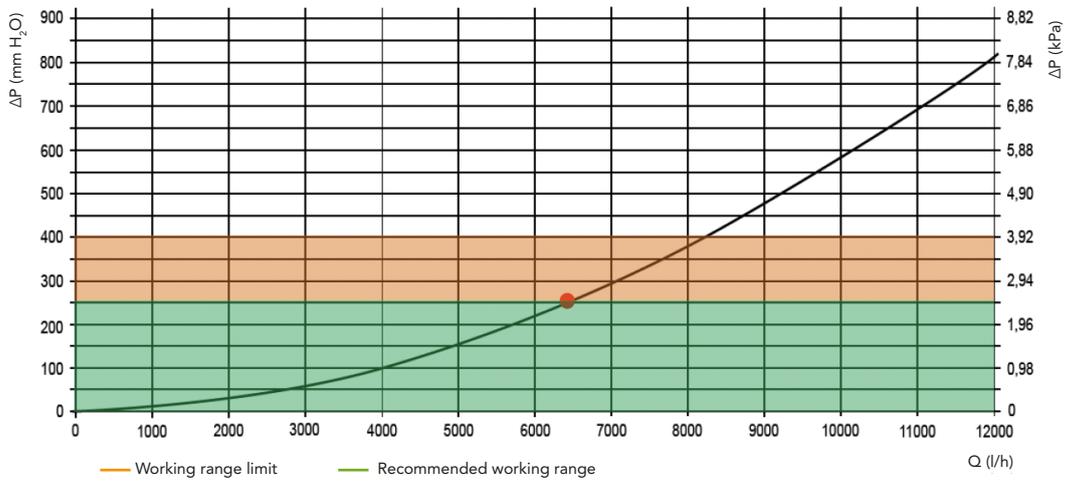
Code	Branches	A [mm]
3223.07.02	2	540
3224.07.02	3	800
3225.07.02	4	1070
3226.07.02	5	1335

FLUID DYNAMICS FEATURES

MULTIMIX DN32

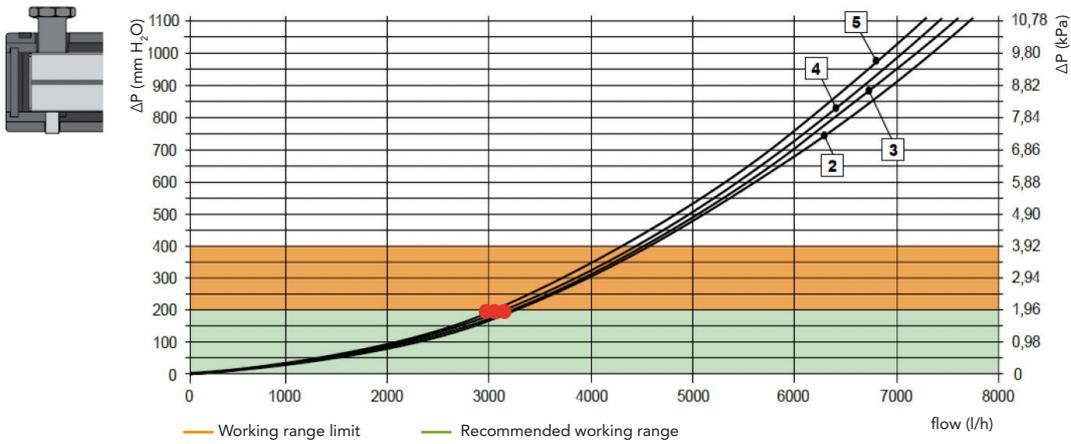
HYDRAULIC SEPARATOR PRESSURE DROPS

Recommended flow rate **6.500 l/h** ●

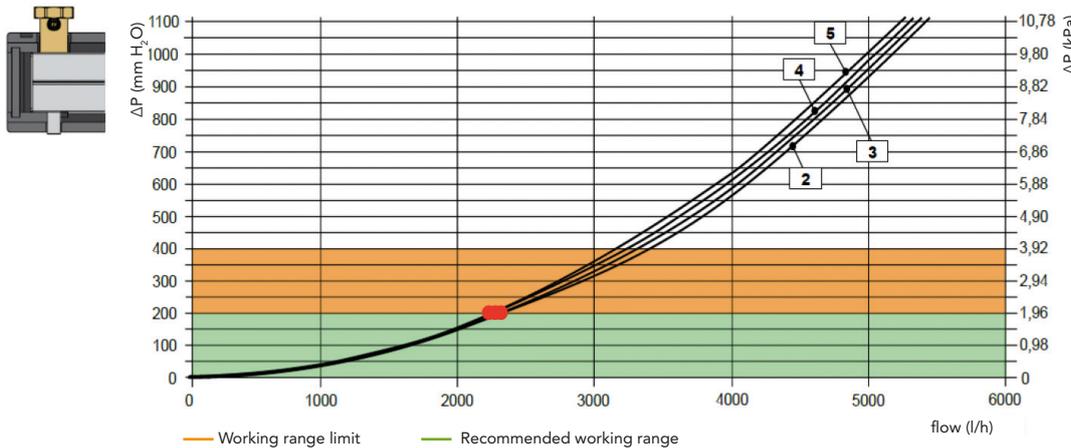


MANIFOLD PRESSURE DROP

Manifold with clipboard connection *



Manifold with "Minipump" ball valve *



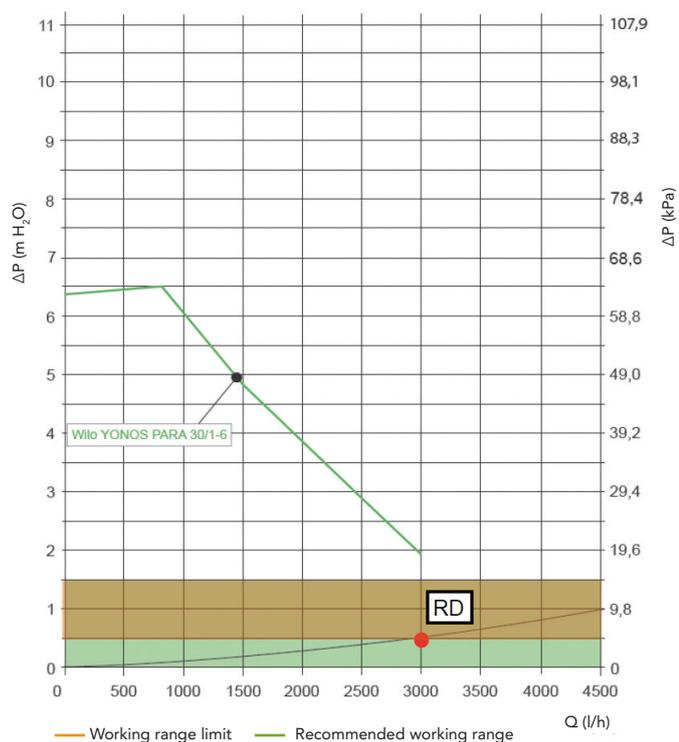
* pressure drop referred to the most unfavourable zone.



PRESSURE LOSSES OF DIRECT BOOSTER SET (SERIES 3228)

Recommended flow rate **3.000 l/h** ●

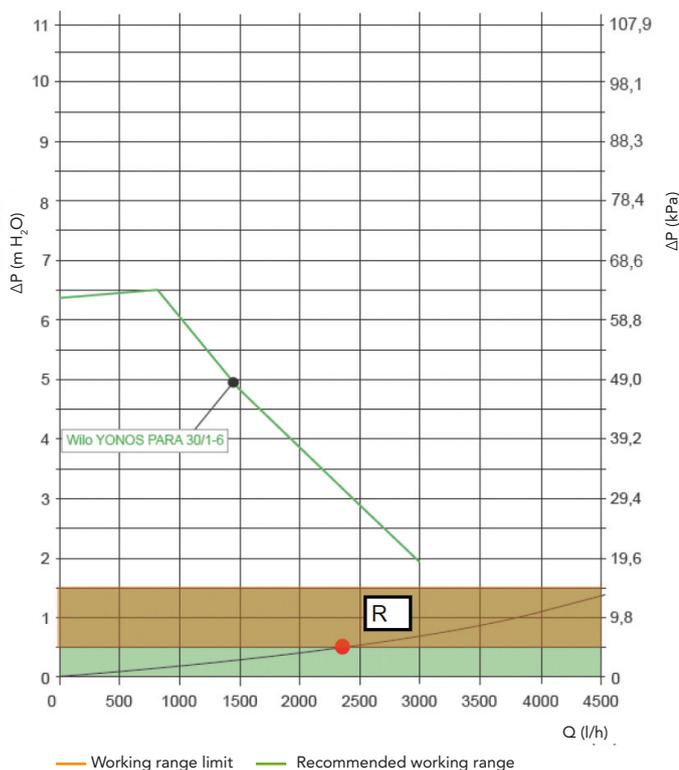
Power at recommended flow rate **69,7 kW (ΔT 20 °C)**



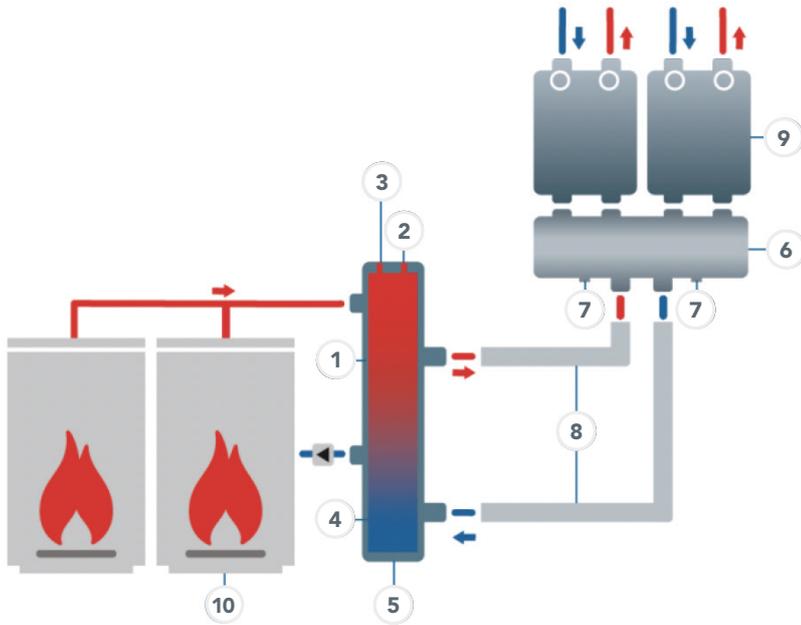
PRESSURE LOSSES OF THE CLIMATIC RECOVERY UNIT (SERIES 3229)

Recommended flow rate **2.400 l/h** ●

Power at recommended flow rate **41.3 kW (ΔT 20 °C)**



FUNCTIONAL HYDRAULIC DIAGRAM



KEY

- 1 Hydraulic separator MULTIMIX S32 cod. 3219.07.02
- 2 Connection for air venting
- 3 Connection for temperature probe holder
- 4 Sludge load-drain
- 5 Connection for support foot (foot not available)
- 6 MULTIMIX C32 zone manifold (2-3-4-5 utilities)
- 7 Wall manifold support connection
- 8 Connection piping kit code 3222.07.X2
- 9 Direct booster unit RD32 code 3228.07.02 / mixed RM MIX32 code 3229.07.02
- 10 Heat generator

SPECIFICATIONS

SERIES 3219

Hydraulic separator MULTIMIX S32

Hydraulic separator with 1 1/2" M threaded connections, body made of galvanised steel (Fe 37.1) colour RAL 9004, complete with polyurethane foam insulation covered with aluminium sheet. Complete with provision for:

- Air vent 1/2" F connection (unplugged when supplied - any plug to be provided by the installer);
- 1/2" F safety unit connection (unplugged when supplied - any plug to be provided by the installer);
- System sludge drain (2" F hole complete with plug when supplied and positioned on the opposite side of the separator with respect to the manifold);
- 1 1/4" F threaded blind hole on the bottom for fastening the support foot (foot not included).

Qn max 6.5 m³/h. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C

SERIES 3222

Insulated pipe kit to connect Multimix S32 vertical separator and Multimix C32 zone manifold. Pipes supplied complete with 2 1 1/2" x 2" reducing couplings for connection on Multimix S32 hydraulic separator side. Qn max 6.5 m³/h. Maximum operating pressure 6 Bar. Maximum operating temperature 100 °C. Capacity 4.8 l

SERIES 3223

Multimix C32 zone manifold. Wall-mounted zone manifolds with double chamber for 2, 3, 4 and 5 zones for heating / cooling systems. 2" M threaded connections from the heat generator - centre distance 125 mm, connections to the areas with 1 1/4" M threaded fittings - centre distance 125 mm. Black water-painted steel body (ST37.1 - RAL 9004), complete with black EPP insulation (density 40 g/l). Square profile manifolds. Pressure chamber of ø52 mm (for DN50). Return chamber of ø41 mm (for DN40). 1" F connection for safety unit (delivery). 3/4" F connection for expansion tank (return). Requires screwing on "Minipump" shut-off ball valves series 3231 or folded fittings series 3230, for connection to RM MIX32 and RD32 booster sets (accessories available separately). Possibility of screwing mixing groups prearranged for metering RD25 CONT, RF25 CONT and RM25 CONT by means of suitable reductions cod. 3237.06.02. Maximum power 120 kW (Δt 20 °C). Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C. Minimum operating temperature 7 °C

SERIES 3227

Wall bracket kit for Multimix C32 manifold.

SERIES 3228

Direct booster unit RD32. High-temperature unit for heating/cooling systems complete with:

- High efficiency circulator model Wilo Yonos Para 30/1-6;
- Ball valve with thermometer on system flow and return;
- Spacer fitting with check valve;
- Black EPP insulation (density 40 g/l).

Max capacity 3000 l/h. Maximum power ($\Delta t = 20\text{ }^{\circ}\text{C}$) 69.7 KW. DN32 - 1"1/4 nominal diameter. Brass ball valves. Acetal resin (POM) check valve. Viton / EPDM seals. 1"1/4 F x 2" M connections. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C. Minimum cooling temperature 11 °C

SERIES 3229

RM MIX32 mixing unit. Mixing unit for heating/cooling system complete with:

- 3-way mixing valve (Actuator to be combined separately depending on the chosen thermoregulation - see actuator range);
- High efficiency circulator model Wilo Yonos Para 30/1-6;
- Ball valves with thermometer on system flow and return;
- Spacer fitting with check valve;
- Black EPP insulation (density 40 g/l).

Max capacity 2400 l/h. Maximum power ($\Delta t = 20\text{ }^{\circ}\text{C}$) 62.7 KW. DN32 - 1"1/4 nominal diameter. Brass ball valves. Acetal resin (POM) check valve. Viton / EPDM seals. 1"1/4 F x 2" M connections. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C. Minimum cooling temperature 11 °C

SERIES 3234

Direct booster unit, set up for heat metering, RD25 CONT. High-temperature unit for heating/cooling systems complete with:

- High efficiency circulator model Wilo Yonos Para 25/1-6;
- 2 1" F ball valves on system delivery and return, each complete with thermometer;
- Built-in check valve on the system return ball valve (can be excluded for backwashing operations);
- 1" polymer template on system - L 130 mm return line for future calorimeter installation with nQ 2.5 m³/h / Microclima HC25 model (various models available);
- Delivery probe holder well for calorimeter.

Nominal diameter: DN25 - 1". Brass ball valves. Acetal resin (POM) check valve. Viton / EPDM seals. 1" F x 1"1/2 M connections. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C.

SERIES 3235

Fixed point booster unit, set up for heat metering RF25 CONT. Available versions RF25 CONT B.T. (low temperature, temperature adjustment range 25÷52°C) and RF25 CONT A.T. (high temperature, temperature adjustment range 40÷70 °C). Fixed point mixed unit for heating only systems, complete with:

- High efficiency circulator model Wilo Yonos Para 25/1-6;
- 3-way mixing valve with upper by-pass (mixed system side) and thermostatic actuator;
- Contact safety thermostat on the delivery pipe (only model RF MIX B.T)
- 1" polymer template on system - L 130 mm return line for future calorimeter installation with nQ 2.5 m³/h / Microclima HC25 model (various models available);
- Delivery probe holder well for calorimeter.

Nominal diameter: DN25 - 1". Brass ball valves. Acetal resin (POM) check valve. Viton / EPDM seals. 1" F x 1"1/2 M connections. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C.

SERIES 3236

Direct booster unit, set up for heat metering, RD25 CONT. Mixed unit with shifting temperature for heating/cooling systems, complete with:

- High efficiency circulator model Wilo Yonos Para 25/1-6;
- 3-way mixing valve (Actuator to be combined separately depending on the chosen thermoregulation - see actuator range);
- 1" polymer template on system - L 130 mm return line for future calorimeter installation with nQ 2.5 m³/h / Microclima HC25 model (various models available);
- Delivery probe holder well for calorimeter.

Nominal diameter: DN25 - 1". Brass ball valves. Acetal resin (POM) check valve. Viton / EPDM seals. 1" F x 1"1/2 M connections. Maximum operating pressure 6 Bar. Maximum operating temperature 120 °C.

SERIES 3237

Reduction fittings for connection of DN25 modules on DN32 manifold. Size 2" M/AG x 1"1/2 F

RBM spa reserves the right to improve and change the products described and relevant technical data at any moment and without prior notice. The information and images contained in this document are intended for information purposes only, are not binding and in any case do not exempt the user from strictly following the regulations in force and good practice standards.

RBM Spa
Via S. Giuseppe, 1 • 25075 Nave (Brescia) Italy
Tel 030 2537211 • Fax 030 2531798 • info@rbm.eu • www.rbm.eu

 @rbmspa  RBM S.p.A.  rbm_spa_  Rbm Italia

