

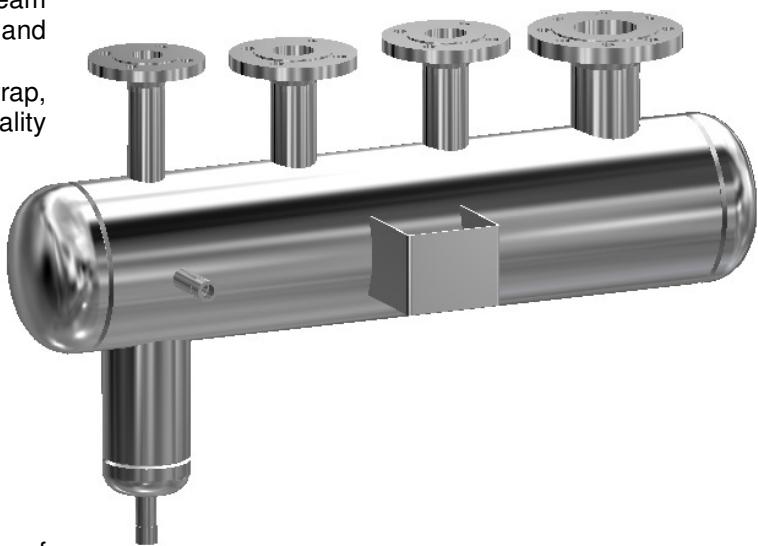
STEAM DISTRIBUTION MANIFOLD MAS

DESCRIPTION

MAS series steam distribution manifolds place the steam supply valves in one location, providing cost savings and easy control of different steam lines.

The drain connection with automatic steam trap, discharge any condensate formed, providing high quality dry steam.

Connections are flanged or threaded.



MAIN FEATURES

Several installation possibilities

Reduced field assembly costs by means of prefabrication.

OPTIONS: Complete units including valves, pressure gauge and steam trap station
Different designs

USE: Saturated or superheated steam
Water, compressed air and other fluids (on request)

AVAILABLE MODELS: MAS-H – Horizontal steam distribution manifold
MAW-H – Horizontal liquid manifold
MAG-H – Horizontal gas manifold

SIZES: DN100 to DN300.

PIPE CONNECTIONS: Flanged EN 1092-1 PN16 and PN40
ANSI Class 150 lbs and Class 300 lbs
Female screwed BSP or NPT on request.

INSTALLATION: Always with the condensate connection pointing downwards.

DESIGN CODE: AD Merkblatt

INQUIRY INFORMATION: Kind of fluid, maximum operating pressure and temperature
Manifold diameter (dimension B)
Number of connections from left to right using suffix "I" and "O" to identify the inlets and outlets. Example: MAS-H B-168 with 1 DN100-I + 2 DN50-O + 1 DN40-O
Condensate connection d1
Other relevant information like insulation thickness, instrumentation connections, etc.
Note: In case of order an approval drawing shall be sent before manufacturing

CE Marking

This product have been designed for use on water steam, air and other gases which are in Group 2 of the PED-European Pressure Equipment Directive 97/23/EC and it must comply with those requirements.

The product carries the CE mark when falling in category 1 and above.

Since this is not a standard product which can have different volumes and operation conditions, the conformity assessment has to be carried out case by case.

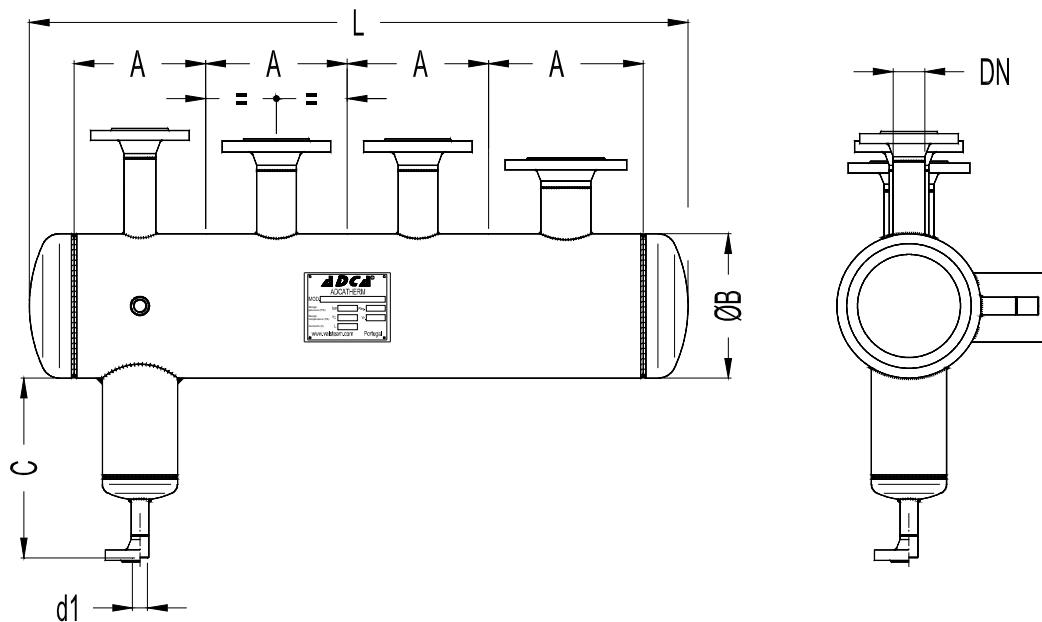
| STANDARD MATERIALS | | FLANGE CONNECTIONS | | | |
|----------------------|-----------------------------|--------------------|----------------|----------------|-----------------------|
| DESIGNATION | MATERIAL | Rating | SIZE | EN STD. | ANSI STD. |
| Body | EN10216-2 / P235GH / 1.0325 | PN16 | * DN15 to DN50 | EN 1092-1 PN40 | ANSI B16.5 Cl.150 lbs |
| Heads | EN10028-2 / P265GH / 1.0425 | PN16 | DN65 to DN300 | EN 1092-1 PN16 | ANSI B16.5 Cl.150 lbs |
| Inlet / Outlet pipes | EN10216-2 / P235GH / 1.0325 | PN25 | DN15 to DN150 | EN 1092-1 PN40 | ANSI B16.5 Cl.300 lbs |
| DIN flanges | EN10222-2 / P250GH / 1.0460 | PN25 | DN200 to DN300 | EN 1092-1 PN25 | ANSI B16.5 Cl.300 lbs |
| ANSI flanges | ASTM A105 / 1.0432 | PN40 | DN15 to DN300 | EN 1092-1 PN40 | ANSI B16.5 Cl.300 lbs |
| Sockets | ASTM A105 / 1.0432 | | | | |
| * Internals | EN10025-2 / S235JR / 1.0038 | | | | |

* Flanges EN 1092-1 PN16 and PN40 from DN15 to DN50 has the same number and size of holes.

EN10204 3.1 certificate available if requested

with the order.

* If any.



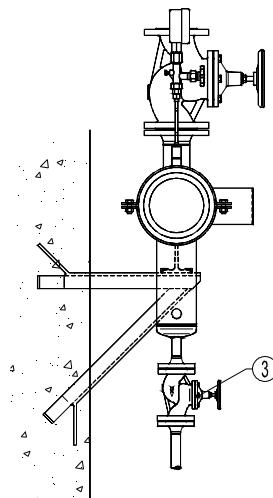
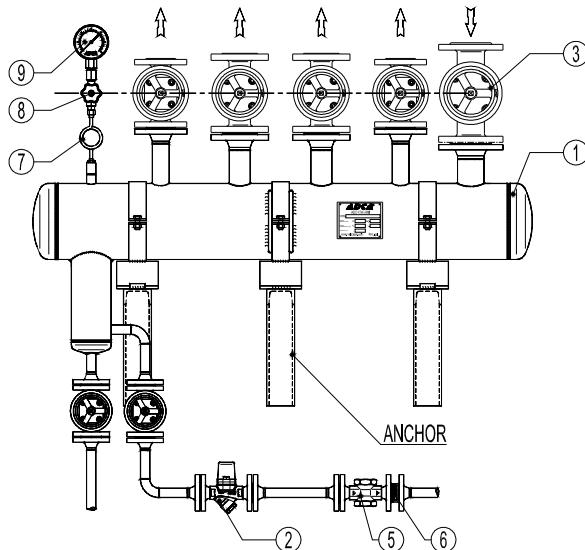
| APPROXIMATE DIMENSIONS (mm) | | | | | | | | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| EN 1092-1 FLANGES | | | | | | | | | | | | | | |
| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| A (mm) | 145 | 155 | 165 | 190 | 200 | 215 | 235 | 250 | 270 | 300 | 335 | 395 | 455 | 510 |

Suggested dimensions for standard EN 1092-1 PN16-40 flanged globe valves.

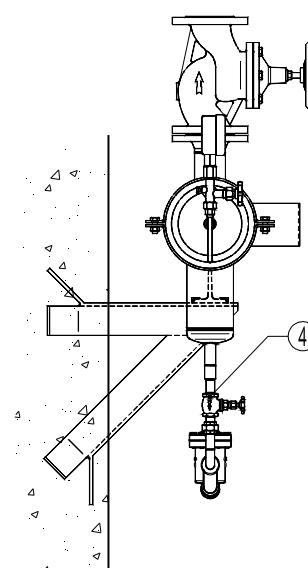
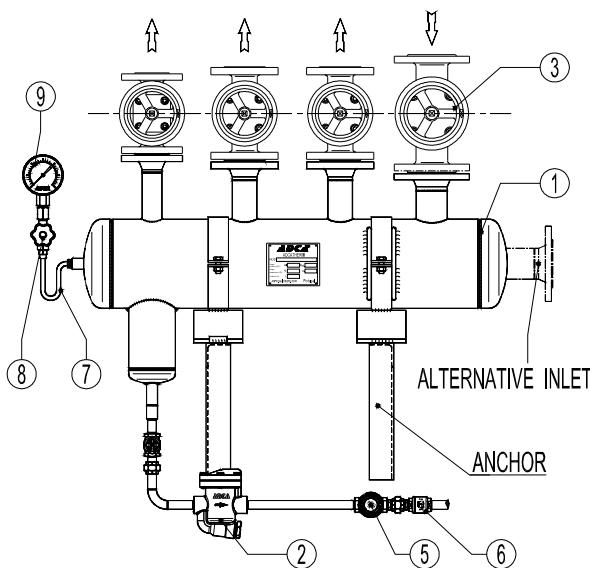
| APPROXIMATE DIMENSIONS (mm) | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|
| STANDARD PIPES | | | | | | | |
| Ø B | 114 | 140 | 168 | 220 | 275 | 325 | 357 |
| D (mm) | 40 | 45 | 55 | 70 | 80 | 90 | 105 |
| DN * | 65 | 80 | 100 | 150 | 200 | 250 | 300 |

* Maximum recommended size connection.

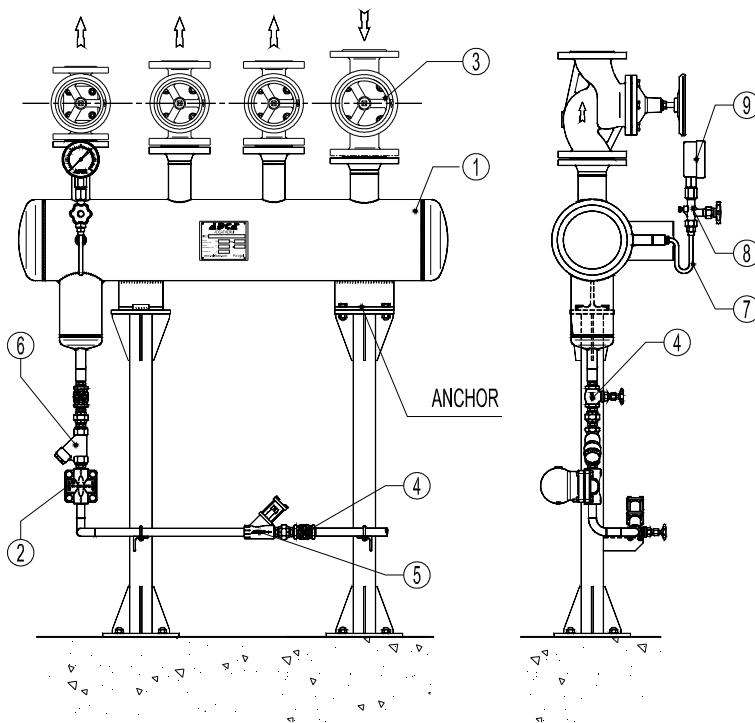
TYPICAL INSTALLATIONS



| MATERIALS | |
|-----------|------------------------------|
| Pos. Nr. | REFERENCE |
| 1 | MAS-H - Manifold |
| 2 | BM32 - Bimetallic steam trap |
| 3 | VF16 - Bellow seal valve |
| 5 | DW40 - Sight glass |
| 6 | RD40 - Check valve |
| 7 | GSC-40 Gauge siphon |
| 8 | GC-400 - Gauge cock |
| 9 | MAN-100 - Pressure gauge |

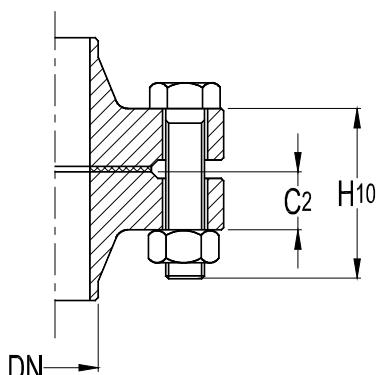


| MATERIALS | |
|-----------|-----------------------------|
| Pos. Nr. | REFERENCE |
| 1 | MAS-H - Manifold |
| 2 | IB12 - Inverted bucket trap |
| 3 | VF16 - Bellow seal valve |
| 4 | GV32B - Globe valve |
| 5 | SW12 - Sight glass |
| 6 | RT25 - Check valve |
| 7 | GSU40 - Gauge siphon |
| 8 | GC-400 - Gauge cock |
| 9 | MAN-100 - Pressure gauge |


MATERIALS

| Pos. Nr. | REFERENCE |
|----------|------------------------------|
| 1 | MAS-H - Manifold |
| 2 | FLT17LC - Float steam trap * |
| 3 | VF16 - Bellow seal valve |
| 4 | GV32B - Globe valve |
| 5 | SCK - Sight checker |
| 6 | IS16 - Y strainer |
| 7 | GSU40- Gauge siphon |
| 8 | GC-400 - Gauge cock |
| 9 | MAN-100 - Pressure gauge |

* Recommended for low pressure only.


BOLTING DIMENSIONS FOR FLANGES

| DN | EN 1092-1 Type 11 PN16 | | | | EN 1092-1 Type 11 PN25 | | | | EN 1092-1 Type 11 PN40 | | | | |
|-----|------------------------|-----|----------------|------|------------------------|-----|----------------|------|------------------------|-----|----------------|------|----|
| | C2 | Ø L | Bolting Nr. | H 10 | C2 | Ø L | Bolting Nr. | H 10 | C2 | Ø L | Bolting Nr. | H 10 | |
| 15 | 16 | 14 | 4 | M12 | 50 | 16 | 14 | 4 | M12 | 50 | 16 | 14 | 4 |
| 20 | 18 | 14 | 4 | M12 | 55 | 18 | 14 | 4 | M12 | 55 | 18 | 14 | 4 |
| 25 | 18 | 14 | 4 | M12 | 55 | 18 | 14 | 4 | M12 | 55 | 18 | 14 | 4 |
| 32 | 18 | 18 | 4 | M16 | 55 | 18 | 18 | 4 | M16 | 55 | 18 | 18 | 4 |
| 40 | 18 | 18 | 4 | M16 | 55 | 18 | 18 | 4 | M16 | 55 | 18 | 18 | 4 |
| 50 | 18 | 18 | 4 | M16 | 55 | 20 | 18 | 4 | M16 | 60 | 20 | 18 | 4 |
| 65 | 18 | 18 | 4* | M16 | 55 | 22 | 18 | 8 | M16 | 65 | 22 | 18 | 8 |
| 80 | 20 | 18 | 8 | M16 | 60 | 24 | 18 | 8 | M16 | 70 | 24 | 18 | 8 |
| 100 | 20 | 18 | 8 | M16 | 60 | 24 | 22 | 8 | M20 | 75 | 26 | 22 | 8 |
| 125 | 22 | 18 | 8 | M16 | 65 | 26 | 26 | 8 | M24 | 80 | 28 | 26 | 8 |
| 150 | 22 | 22 | 8 | M20 | 70 | 28 | 26 | 8 | M24 | 90 | 30 | 26 | 8 |
| 200 | 24 | 22 | 12 | M20 | 75 | 30 | 26 | 12 | M24 | 90 | 36 | 30 | 12 |
| 250 | 26 | 26 | 12 | M24 | 80 | 32 | 30 | 12 | M27 | 100 | 42 | 33 | 12 |
| 300 | 28 | 26 | 12 | M24 | 90 | 34 | 30 | 16 | M27 | 100 | 52 | 33 | 16 |
| | | | | | | | | | | | | | |

* Flange EN 1092-1 DN65 PN16 with 4 holes as standard. Flange with 8 holes upon request.