MANN+HUMMEL coolant expansion tanks
The modular MCR product range

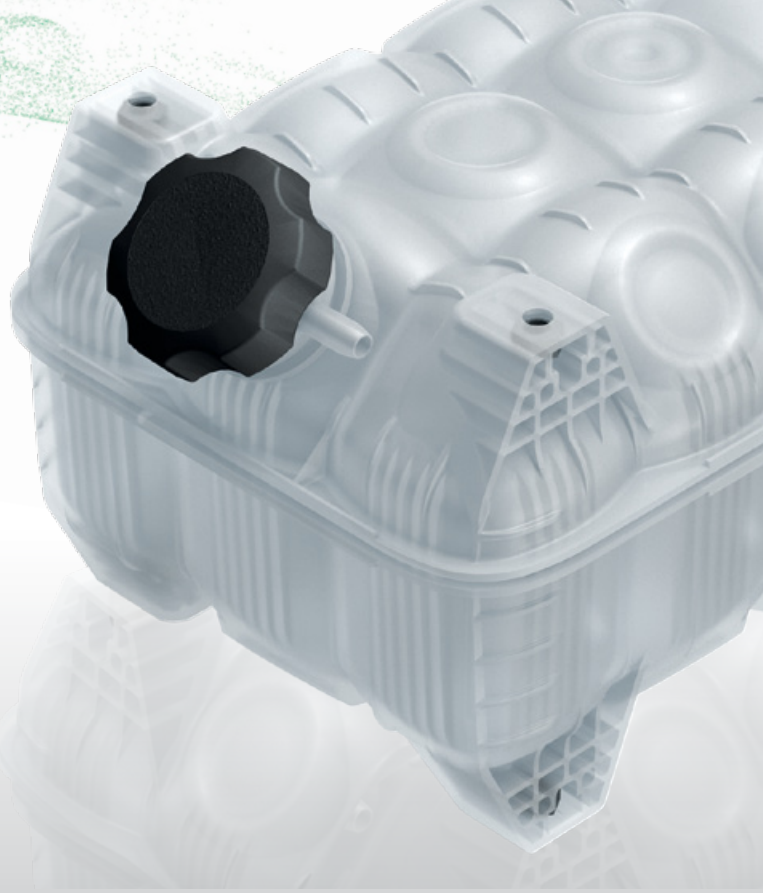
The unique modular MCR product range

Modular Coolant Reservoir (MCR)

MANN+HUMMEL has been developing customised coolant expansion tanks for automotive and industrial OEM applications for more than 20 years. We recommend a customised development for customers with high volumes.

For the first time the new product range combines our longstanding expertise in this segment with the technology of modular product families. This means customers with small to medium volumes can now also benefit from tailor made coolant expansion tanks off the shelf.

Using our experience we have used the 20,000 configuration possibilities offered by the MCR modular product range to generate 24 standard products, which are available on stock.



Why MCR – the market situation

Customer requirements: no standardisation

Coolant expansion tanks are usually considered at the end of the engine and engine compartment planning and have to be adapted to meet the available space. At the same time they have to be fine-tuned to the respective application and the respective operating conditions. As a result there are no standardised coolant expansion tanks available on the market. The existing options are: commission a new tank, look for a suitable alternative or design one yourself. These solutions require a compromise in terms of time, costs and quality.

The new MCR product range from MANN+HUMMEL combines the advantages of today's market solutions to eliminate these disadvantages.

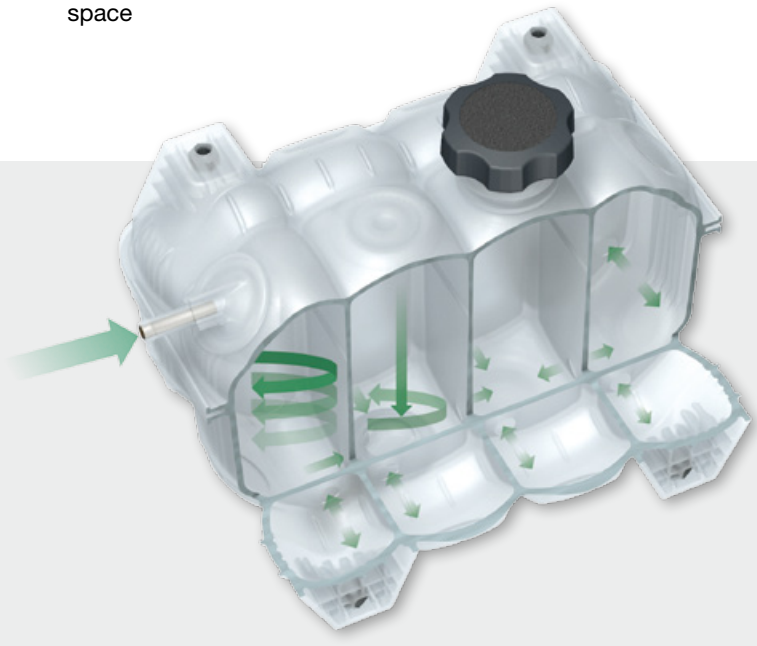
The advantages of the MCR product range:

- available at short notice (24 standard products on stock)
- no development or tooling costs
- also economic for low volumes
- very good value for money
- excellent flexibility regarding installation space
- easy to fit
- adaptable to special applications
- robust design suitable for heavy duty applications
- proven MANN+HUMMEL quality

The de-gassing function

Keeping the air out

The advanced flow configuration of the new MANN+HUMMEL MCR product range avoids the formation of air bubbles in the coolant expansion tank and cooling system. This enables an excellent cooling function which serves to protect the engine.



MCR – Applications

Extremely versatile

The MCR product range offers high flexibility with regard to the available installation space and covers a wide range of engine outputs. This makes the MCR product range suitable for almost all machines with combustion engines, e.g. for construction and agricultural machines, stacker trucks, mobile and stationary compressors, etc.

MCR – Modular system

6 tank sizes from 1.5 to 8 litres

Using a low number of components, the clever modular system is able to generate 6 tank sizes.

The orientation of the tanks enables high installation space flexibility. The tanks can be fitted in a vertical or horizontal position.

MCR 15 - MCR 35 product range

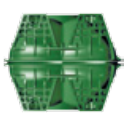
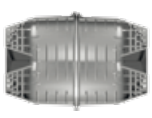
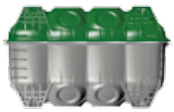
Basic component 1

Basic component 2

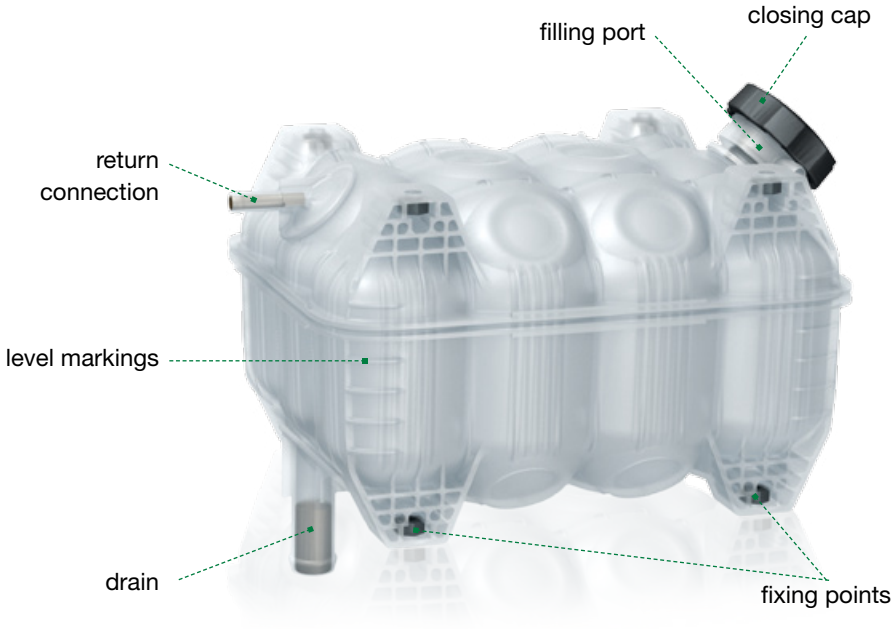
MCR 36 - MCR 80 product range

Basic component 1

Basic component 2

MCR 15 - MCR 35 product range – volumes: 1.5 to 3.5 litres					
MCR 15 – 1.5 litres		**MCR 25 – 2.5 litres**		**MCR 35 – 3.5 litres**	
					
horizontal fitting	vertical fitting	horizontal fitting	vertical fitting	horizontal fitting	vertical fitting
MCR 36 - MCR 80 product range – volumes: 3.6 to 8 litres					
MCR 36 – 3.6 litres		**MCR 56 – 5.6 litres**		**MCR 80 – 8 litres**	
					
horizontal fitting	vertical fitting	horizontal fitting	vertical fitting	horizontal fitting	vertical fitting

MCR – System components



Option: electronic level sensor

On request the coolant expansion tank can also be equipped with an electronic level sensor.

Filling port

- integrated overflow
- possibility to attach hose to overflow

Closing cap

- double ring seal
- vacuum valve
- 1 bar overpressure valve
- cap compensates the expansion volume

Level markings

- depending on the application and operating conditions, the level markings can be individually defined using MIN and MAX stickers.
- stickers included in scope of delivery
- additional markings on tank for visual inspection of level

Fixing points

- excellent flexibility and reliable function
- tank can be fitted to flat surfaces in horizontal and vertical position
- up to 4 M8 screws can be used on each tank side
- 8 M8 nuts are supplied

Drain and return connection

- secure connection between tank and hose
- robust design through integrated metal tubes

Over 20,000 possibilities – 24 standard products

24 standard products

MANN+HUMMEL has 24 standard products available on stock. These versions are based on the most common applications and operating conditions.

Alternative configurations

The modular product range allows over 20,000 different combination possibilities. Customised variations are available on request. All connections such as filling port, closing cap, drain and return connection can be freely positioned.

MCR – Complete overview

MCR 15

10 015 08 S01	10 015 15 S01	10 015 14 S01

MCR 25

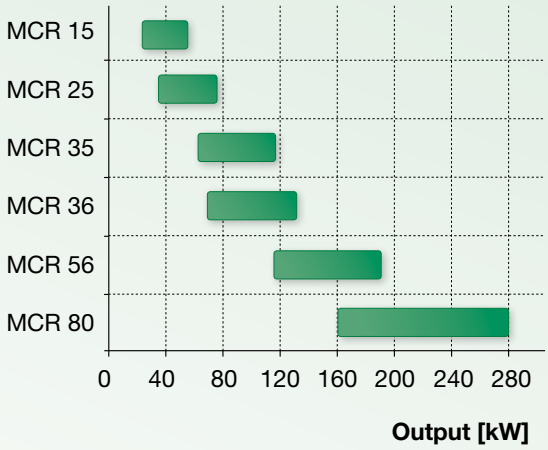
10 025 00 S01	10 025 02 S01	10 025 01 S01

MCR 35

10 035 00 S01	10 035 12 S01	10 035 11 S01

Engine output range

The MCR product range covers engines with outputs up to 280 kW. The required volume of a coolant expansion tank essentially depends on the design of the machine and coolant circuit. MANN+HUMMEL will be happy to advise you on the configuration.



MCR 36

10 036 00 S01	10 036 02 S01	10 036 03 S01	10 036 04 S01	10 036 05 S01

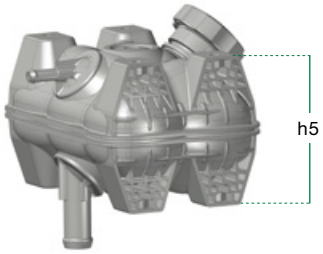
MCR 56

10 056 00 S01	10 056 01 S01	10 056 02 S01	10 056 03 S01	10 056 04 S01

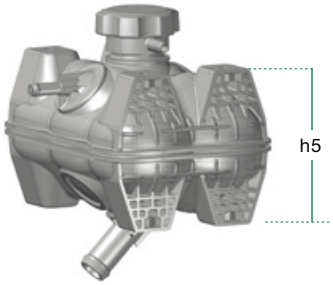
MCR 80

10 080 00 S01	10 080 02 S01	10 080 03 S01	10 080 04 S01	10 080 05 S01

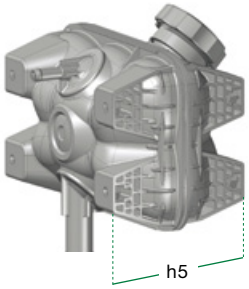
MCR 15



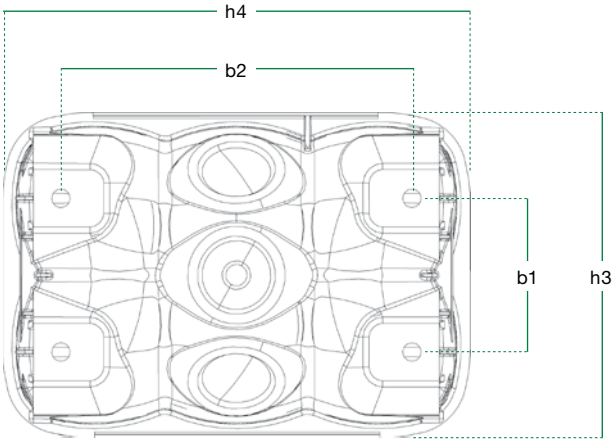
10 015 08 S01



10 015 15 S01



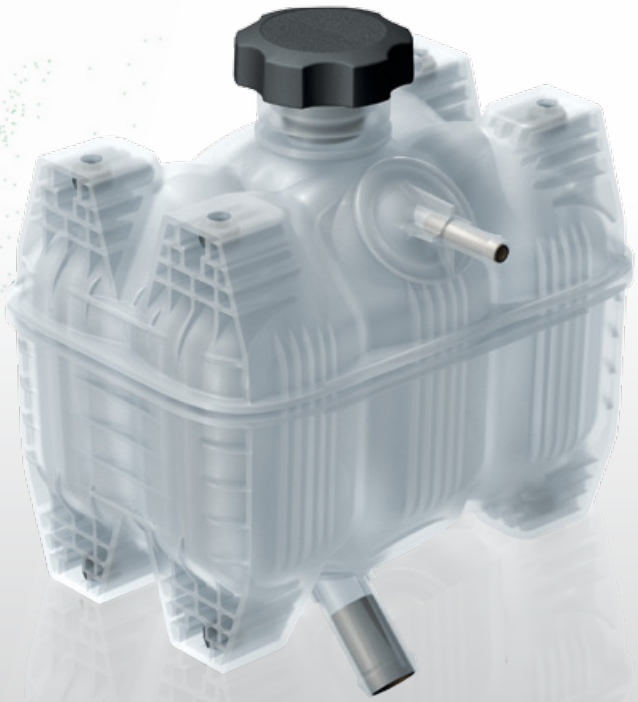
10 015 14 S01

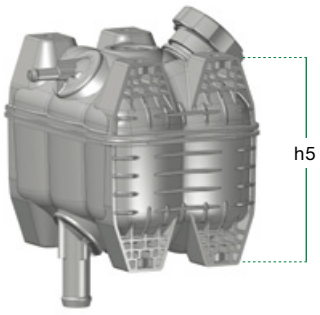


MCR 15

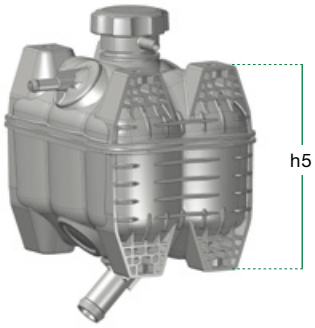
Order number	Orientation	Volume	**b1** (mm)	**b2** (mm)	**h3** (mm)	**h4** (mm)	**h5** (mm)	Weight
10 015 08 S01	horizontal	1.5 l	70	160	150	215	115	0.7 kg
10 015 15 S01	horizontal		70	160	150	215	115	
10 015 14 S01	vertical		70	160	150	215	115	

MCR 25

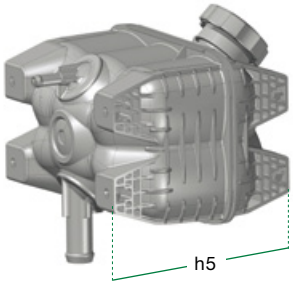




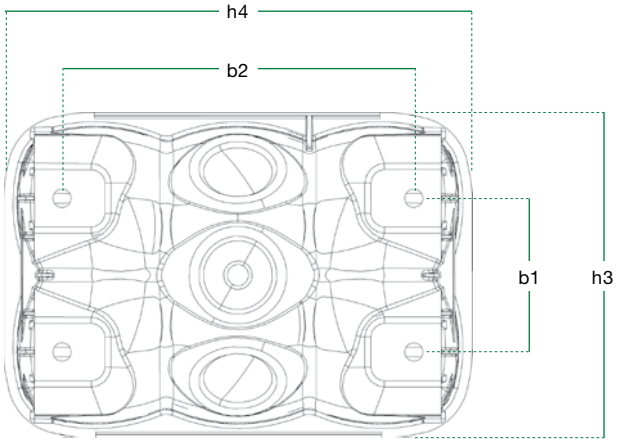
10 025 00 S01



10 025 02 S01



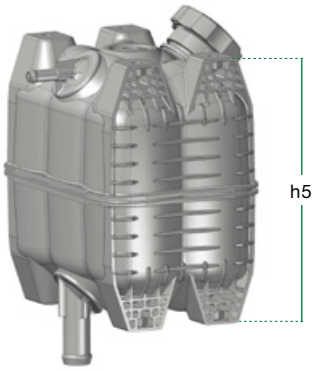
10 025 01 S01



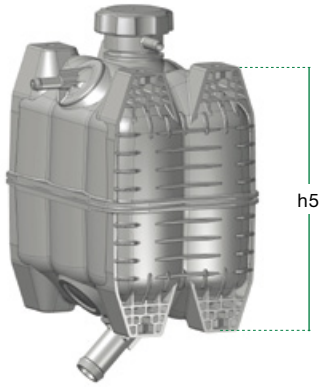
MCR 25

Order number	Orientation	Volume	b1 (mm)	b2 (mm)	h3 (mm)	h4 (mm)	h5 (mm)	Weight
10 025 00 S01	horizontal	2,5 l	70	160	150	215	171	0.9 kg
10 025 02 S01	horizontal		70	160	150	215	171	
10 025 01 S01	vertical		70	160	150	215	171	

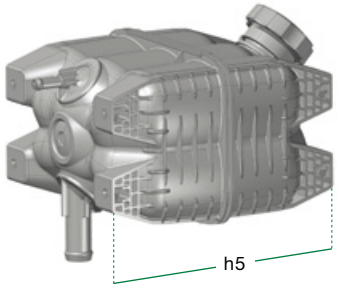
MCR 35



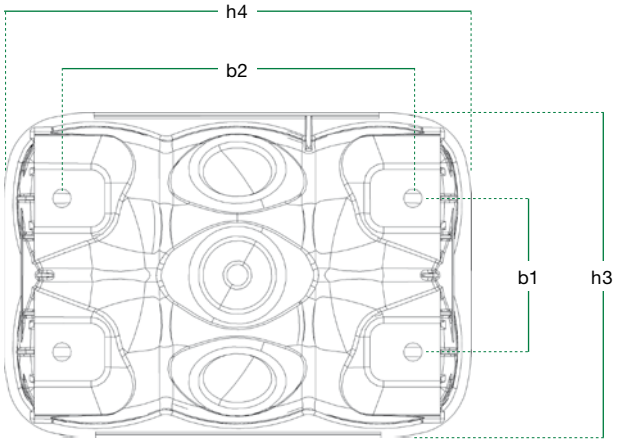
10 035 00 S01



10 035 12 S01



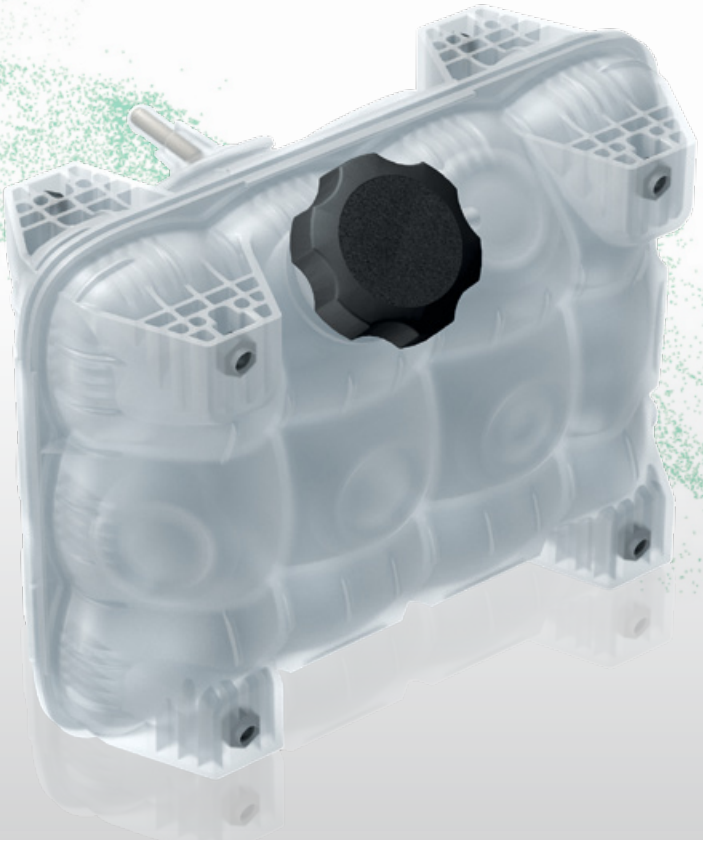
10 035 11 S01



MCR 35

Order number	Orientation	Volume	**b1** (mm)	**b2** (mm)	**h3** (mm)	**h4** (mm)	**h5** (mm)	Weight
10 035 00 S01	horizontal	3.5 l	70	160	150	215	220	1.1 kg
10 035 12 S01	horizontal		70	160	150	215	220	
10 035 11 S01	vertical		70	160	150	215	220	

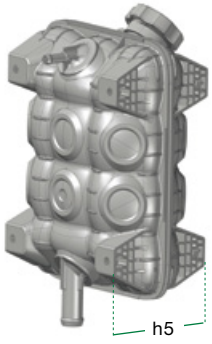
MCR 36



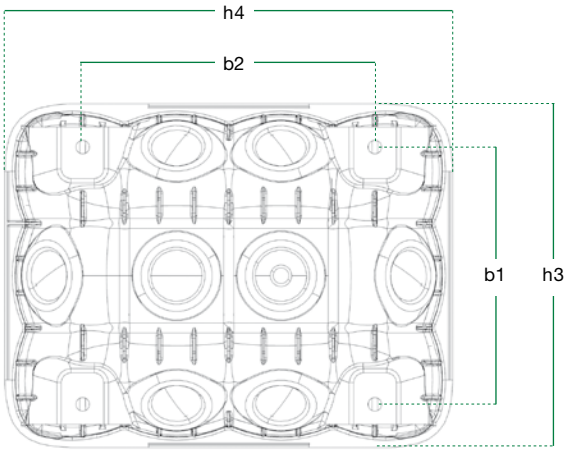
10 036 00 S01

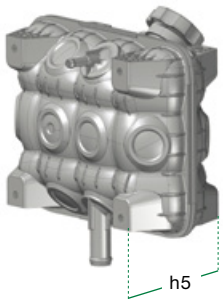
10 036 02 S01

10 036 03 S01



10 036 04 S01



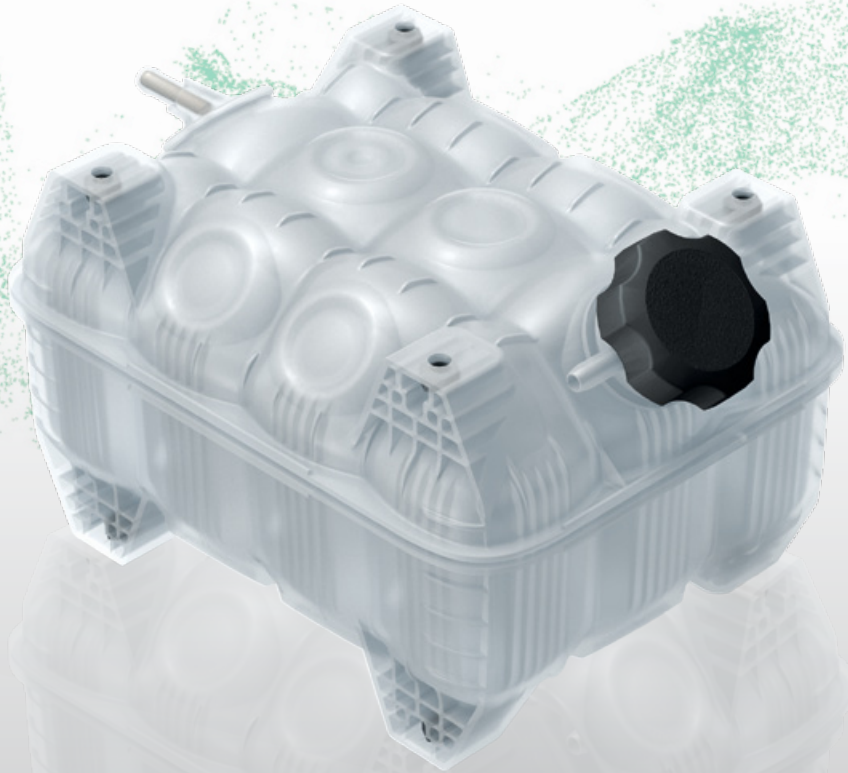


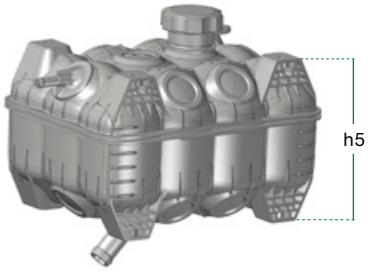
10 036 05 S01

MCR 36

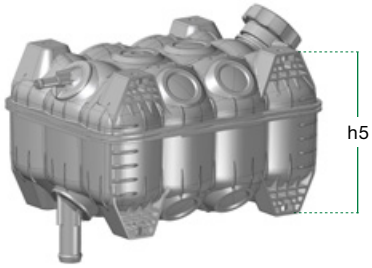
Order number	Orientation	Volume	**b1** (mm)	**b2** (mm)	**h3** (mm)	**h4** (mm)	**h5** (mm)	Weight
10 036 00 S01	horizontal	3.6 l	160	182	215	280	122	1 kg
10 036 02 S01	horizontal		160	182	215	280	122	
10 036 03 S01	horizontal		160	182	215	280	122	
10 036 04 S01	vertical		160	182	215	280	122	
10 036 05 S01	vertical		160	182	215	280	122	

MCR 56

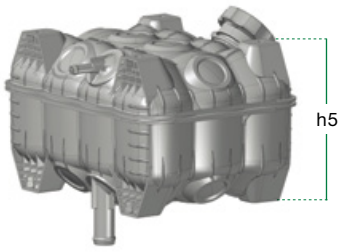




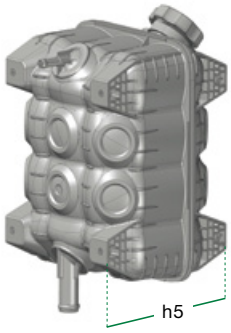
10 056 00 S01



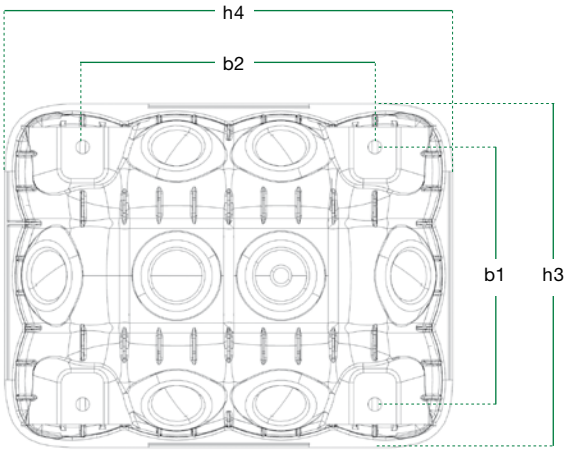
10 056 01 S01

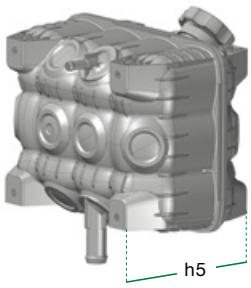


10 056 02 S01



10 056 03 S01



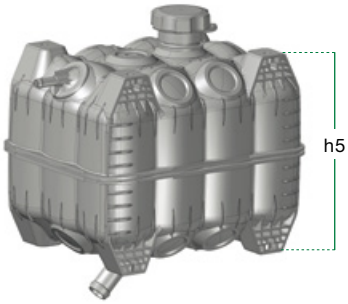


10 056 04 S01

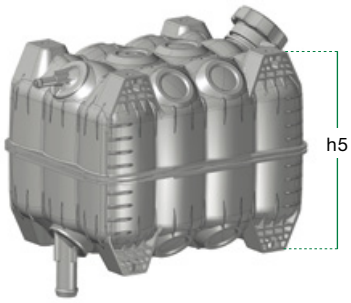
MCR 56

Order number	Orientation	Volume	b1 (mm)	b2 (mm)	h3 (mm)	h4 (mm)	h5 (mm)	Weight
10 056 00 S01	horizontal	5.6 l	160	182	215	280	171	1.3 kg
10 056 01 S01	horizontal		160	182	215	280	171	
10 056 02 S01	horizontal		160	182	215	280	171	
10 056 03 S01	vertical		160	182	215	280	171	
10 056 04 S01	vertical		160	182	215	280	171	

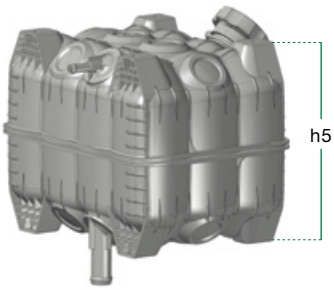
MCR 80



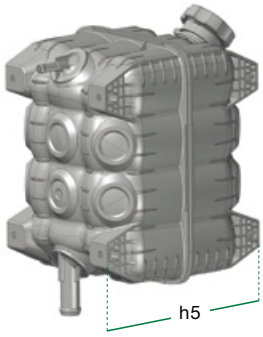
10 080 00 S01



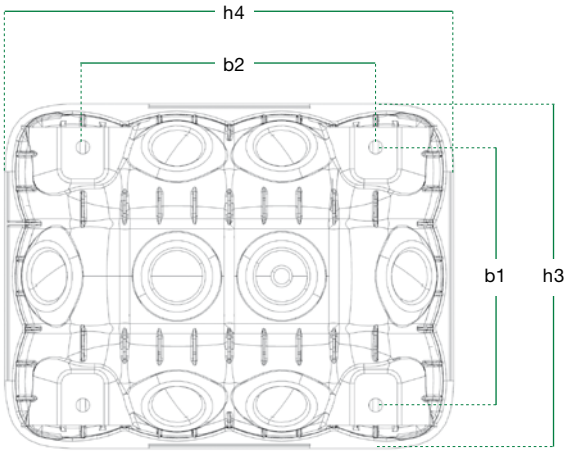
10 080 02 S01

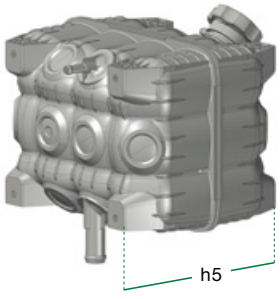


10 080 03 S01



10 080 04 S01

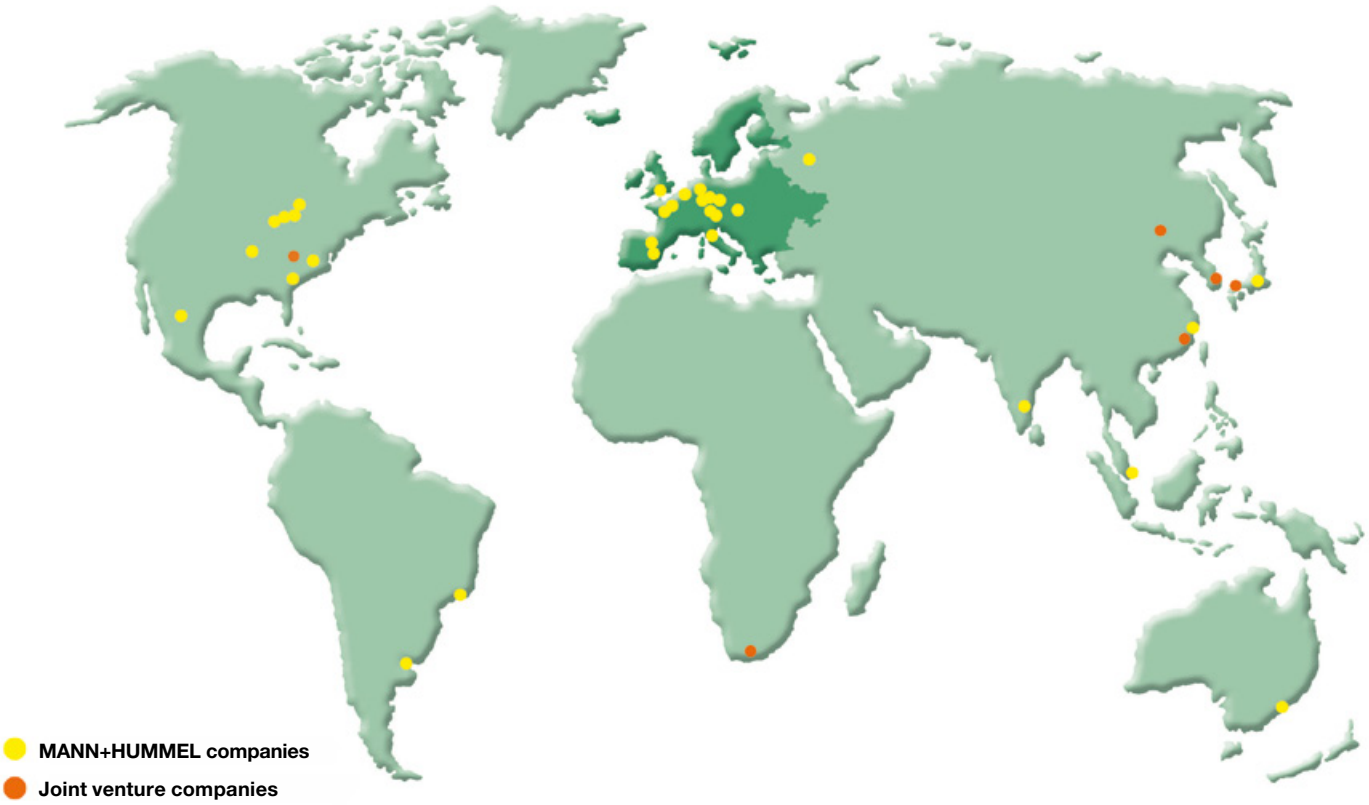




10 080 05 S01

MCR 80

Order number	Orientation	Volume	b1 (mm)	b2 (mm)	h3 (mm)	h4 (mm)	h5 (mm)	Weight
10 080 00 S01	horizontal	8 l	160	182	215	280	220	1.6 kg
10 080 02 S01	horizontal		160	182	215	280	220	
10 080 03 S01	horizontal		160	182	215	280	220	
10 080 04 S01	vertical		160	182	215	280	220	
10 080 05 S01	vertical		160	182	215	280	220	



MANN+HUMMEL Gruppe

The MANN+HUMMEL Group is an international company and employs over 14,750 people at 50 locations worldwide.

The group develops, produces and distributes innovative technical components and systems for the automotive industry and many other industrial fields.

For more than 70 years the company has been a specialist for high quality filtration products for vehicles, engines and industrial applications and is a reliable partner in the OEM business to leading producers of vehicles, machines and installations. Filters for the international aftermarket are sold under numerous international brands as well as under the company's own MANN-FILTER brand.

MANN+HUMMEL Industrial Filtration

The Industrial Filtration Business Unit with its headquarters in Speyer, Germany, specialises in meeting the requirements of off-highway vehicle and engine applications, compressed air and vacuum technology, mechanical engineering and plant construction. For these and other industrial fields MANN+HUMMEL Industrial Filtration offers high performance products for the filtration and separation of air, gases and liquids.

MANN+HUMMEL GMBH · Business Unit Industrial Filtration
67346 Speyer · Germany · Telephone +49 (62 32) 53-80 · Fax +49 (62 32) 53-88 99
Email: if.info@mann-hummel.com · Internet: www.mann-hummel.com

W9 944 10 101 en 0413 Printed in Germany © MANN+HUMMEL GMBH