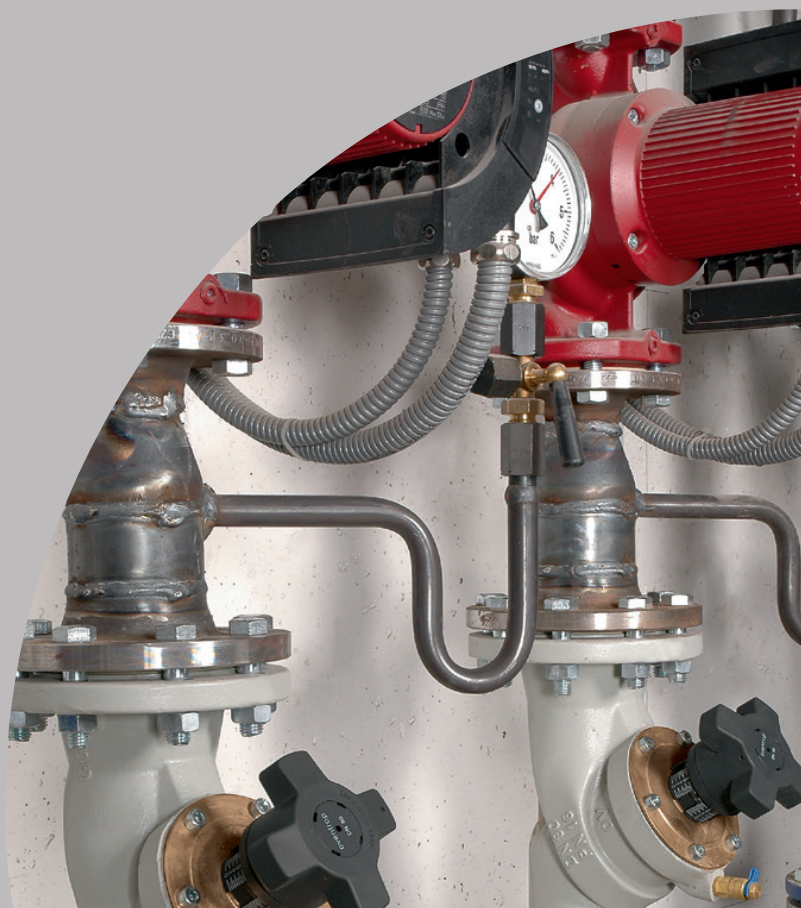


Valves

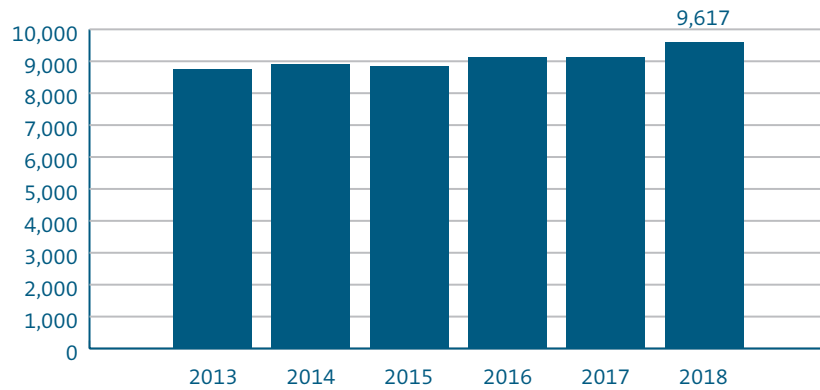


German Building Valves Figures 2018

Image source: Oventrop GmbH & Co. KG



Valve production* 2013-2018 (million €)



* incl. total confidential values
Source: Federal Statistical Office Germany

Production value by sector* 2018

	Sector	value (million €)	share (%)
	Mechanical Engineering	225,070	100.0
1	Materials Handling & Intralogistics	18,495	8.2
2	Power Transmission Engineering	17,494	7.8
3	Machine Tools	17,140	7.6
4	Food Processing & Packaging Machinery	15,166	6.7
5	Air-Handling Technology	14,638	6.5
6	Construction Equipment & Building Material Machines	11,541	5.1
7	Precision Tools	11,179	5.0
8	Agricultural Machinery	10,555	4.7
9	Valves	9,617	4.3
10	Robotics and Automation	8,884	3.9
.			
39	...		

Source: Federal Statistical Office Germany

* In some cases the statistical definition of the mechanical engineering sectors is not fully in line with the organisational definition of the VDMA sectors.

The sector totals are partly estimated due to confidentiality of some results.

VDMA Valves

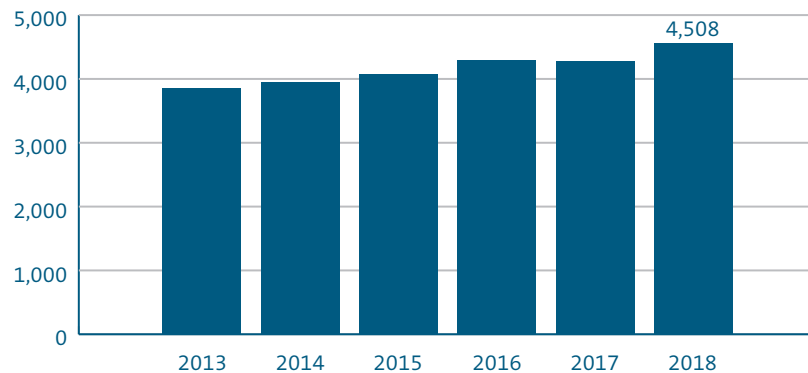
Lyoner Str. 18
60528 Frankfurt am Main
Phone +49 69 6603-1549
E-Mail armaturen@vdma.org

Employees (1,000 people)

	2013	2014	2015	2016	2017	2018
Mechanical Engineering	987	1,004	1,009	1,005	1,018	1,052
Valves	39.0	39.3	40.0	39.8	38.9	40.5

Source: Federal Statistical Office Germany, VDMA

Building valve production* 2013-2018 (million €)



* Total excl. confidential values

Source: Federal Statistical Office Germany

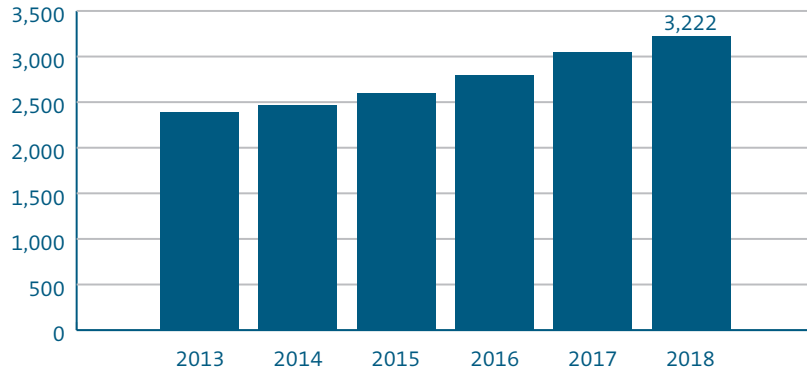
Building valve production (million €)

	2017	2018	change (%)
Valves	9,124.7	9,617.2	5.4
Building valves¹	4,281.8	4,508.7	5.3
Sanitary valves ¹	2,852.6	3,065.7	7.5
Radiator valves ¹	212.5	204.7	-3.7
Shut-off/Safety/ Control valves for buildings	1,216.8	1,238.3	1.8
Industrial valves ¹	3,420.1	3,657.8	7.0
Parts of valves	735.3	747.7	1.7
Assembly & Repair	259.8	260.0	0.1

¹ Total excl. confidential values

Source: Federal Statistical Office Germany

Building valve export 2013-2018 (million €)



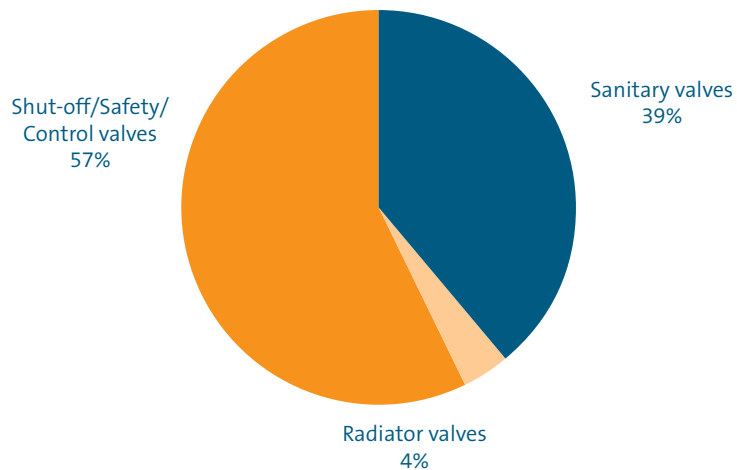
Source: Federal Statistical Office Germany

Building valve export (million €)

	2017	2018	change (%)
Valves	8,559.7	9,154.5	6.9
Building valves	3,043.8	3,222.0	5.9
Sanitary valves	1,328.9	1,244.1	-6.4
Radiator valves	141.9	144.2	1.6
Shut-off/Safety/ Control valves for buildings	1,572.9	1,833.8	16.6
Industrial valves	3,953.2	4,232.3	7.1

Source: Federal Statistical Office Germany

Building valve export by product group 2018 (% of total)



Source: Federal Statistical Office Germany

Building valve export – TOP buying countries (million €)

Countries	2017	2018	change (%)
Reporting countries	3,043.7	3,222.0	5.9
France	286.6	300.6	4.9
USA	226.9	259.3	14.3
China	270.7	254.3	-6.1
United Kingdom	164.2	216.9	32.1
Austria	183.5	188.7	2.8
Netherlands	173.9	181.1	4.1
Poland	154.1	158.2	2.7
Italy	140.1	156.3	11.6
Belgium	110.1	108.6	-1.4
Switzerland	105.7	102.7	-2.8

Source: Federal Statistical Office

Building valve export – TOP supplying countries worldwide (million €)

Countries	2017	2018	change (%)
Reporting countries*	13,645.5	14,113.1	3.4
China	3,890.9	4,014.5	3.2
Germany	3,043.7	3,222.0	5.9
Italy	1,245.9	1,247.2	0.1
Japan	716.4	721.3	0.7
USA	472.4	550.4	16.5
Mexico	494.9	520.8	5.2
Switzerland	507.5	449.0	-11.5
United Kingdom	329.1	328.0	-0.3
France	306.0	323.0	5.6
Czech Republic	268.3	317.3	18.3

*49 countries

Source: National Statistical Offices

Capacity utilisation (%)

	2017	2018	change (%)
Mechanical Engineering	88.0	90.4	2.7
Building Valves	80.6	79.6	-1.2
Industrial Valves	85.0	91.1	7.2

Source: ifo Institute

Order backlog (months)

	2017	2018	change (%)
Mechanical Engineering	4.3	4.9	14.0
Building Valves	1.8	2.1	16.7
Industrial Valves	2.9	3.7	27.6

Source: ifo Institute