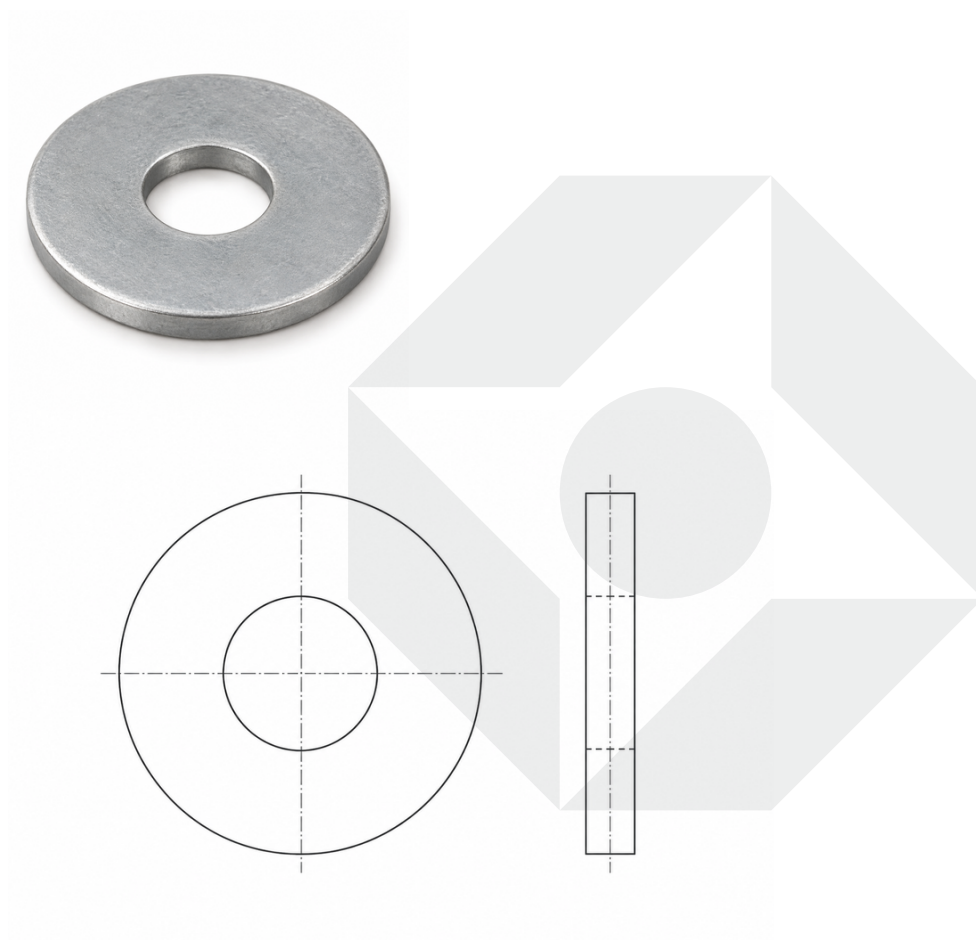


DIN 9021**Commercial large washer · 100 HV**

A 100 HV steel large washer providing a wider bearing surface under a bolt head or nut. This commercial series is distinct from ISO 7093-1: select the bore, outside diameter and thickness together with the finish.

Tabulated commercial sizes M3–M36, with gaps in the series. Other bores, outside diameters and thicknesses on request; nominal M denotes the reference bolt size.



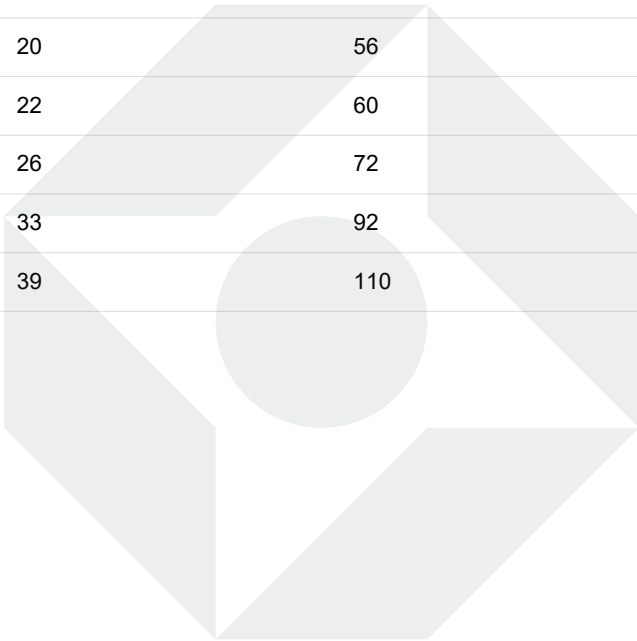
d1: bore diameter · d2: outside diameter · s: thickness (also designated h in technical references)

Identification drawing, not a manufacturing drawing.

Dimensional range

Dimensions in millimetres.

M	d1	d2	s
3	3.2	9	0.8
4	4.3	12	1
5	5.3	15	1.2
6	6.4	18	1.6
8	8.4	24	2
10	10.5	30	2.5
12	13	37	3
14	15	44	3
16	17	50	3
18	20	56	4
20	22	60	4
24	26	72	5
30	33	92	6
36	39	110	8



Materials and classes

Material	Class / hardness	M	Supply
Steel to mechanical specification	100 HV	M3–M36	On request

Finishes and treatments

Finish	Material	Class	M
Plain / as manufactured	Steel to mechanical specification	100 HV	M3–M36
Electroplated zinc	Steel to mechanical specification	100 HV	M3–M36

Select the finish for the material/property-class combination. Hydrogen relief and lubrication are separate process requirements, not certificates and not implied by the coating name.



Standards, documents and enquiry

100 HV identifies the hardness of the commercial steel version described here. Dimensions are nominal catalogue values; tolerances and delivery requirements are agreed for the ordered specification. Do not automatically apply ISO 7093-1 tolerances.

100 HV washers are also used commercially with class 8.8 bolts and class 8 nuts. This is not a universal design rule: verify bearing pressure, support material and joint requirements.

ISO 7093-1:2000

Related series, not an exact equivalent. In this commercial table M5 is 1.2 mm thick; M18/M20/M24 have 20/22/26 mm bores. Hardness and tolerances remain separate from the ISO series.

Supply documentation

Declaration of conformity; Material certificate; EN 10204 2.2 test report; EN 10204 3.1 inspection certificate; Dimensional inspection report; Coating report; Other documentation

Documents are subject to order agreement; no batch certificate is automatically included.

Related components

ISO 7093 1, ISO 7089, ISO 4014, ISO 4032. Check bore size, bearing surface, hardness and materials throughout the connection.

Request a quote

Specify standard, diameter, pitch and length where applicable, material, property class or hardness, finish, quantity and documents. Other sizes and dedicated production can be assessed on request, with agreed minimum quantities.

Reference technical configurations: these do not represent stock quantities.

Other materials and specifications

For requirements beyond the tabulated combinations, enquire about aluminium, brass, nylon, duplex, superduplex or an ASTM specification. Alloy or grade, dimensions, mechanical requirements and finish are defined for the enquiry; the geometric reference does not automatically imply conformity with the product standard.