in any other way should be removed from the spindle at once and replaced with a flange in good condition

There are two classes of flanges used to mount abrasive wheels straight flanges and safety flanges

Straight flanges serve only as a support and driving medium for the wheel and should only be used where a safety guard (protection hood) is installed on the wheel They may be simple collar type flanges or integral parts of the wheel sleeves and adapters

Straight flanges are available in three types for straight-sided abrasive wheels Straight flanges should be used with straight-sided wheels having small holes which fit directly on the spindle or machine arbor Minimum dimensions for these flanges are given in Table 26-A

Straight flanges of the adapter type should be used with straight-sided wheels having holes larger than the machine arbor or spindle The dimensions of such flanges should not be less than those specified in Table 26-B This type of flange is not recommended for vitrified snagging wheels

Straight flanges of the sleeve type should be used on precision grinding machines for mounting straight-sided or recessed wheels with holes larger than the machine arbor The dimensions of such flanges should not be less than those specified in Table 26-C

Safety flanges are used on abrasive wheels of special shapes and those 6 in or more in diameter that are not provided with safety guards, chucks, or bands These flanges are designed so that, in addition to clamping the wheel to the spindle, they tend to retain the pieces of wheel in case of breakage during operation Tapered, hub, and ring are the three types of safety flanges most commonly used

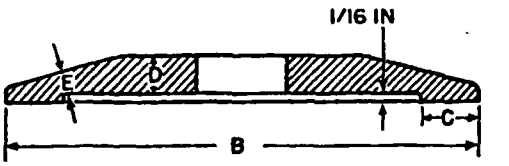
Hub flanges are used with wheels having raised hubs Ring flanges have concentric rings projecting from the bearing sides which fit into corresponding grooves on the side of the wheel

Tapered flanges are sometimes called safety, beveled, or concave flanges or collars and are used with abrasive wheels having convex sides This type is preferable and should be used if possible The design of these flanges depends upon the peripheral speed of the wheel

Table 26-D shows minimum dimensions for two types of tapered safety flanges used

TABLE 26-A

MINIMUM DIMENSIONS FOR STRAIGHT RELIEVED FLANGES



Wheel Diam (in)	B Min Outside Diam of Flange (in)	C Radial Width of Bearing Surface Min (in)	C Radial Width of Bearing Surface Max (in)	D Min Thickness of Flange at Bore (in)	E Min Thickness of Flange at Edge of Recess (in)
1	3/8	1/16	1/8	1/16	1/16
2	3/4	1/8	3/16	1/8	3/32
3	1	1/8	3/16	3/16	3/32
4	1 3/8	1/8	3/16	3/16	1/8
5	1 3/4	3/16	1/4	1/4	1/8
6	2	1/4	1/2	3/8	3/16
7	2 1/2	1/4	1/2	3/8	3/16
8	3	1/4	1/2	3/8	3/16
10	3 1/2	5/16	5/8	3/8	1/4
12	4	5/16	5/8	1/2	5/16
14	4 1/2	3/8	3/4	1/2	5/16
16	5 1/2	1/2	1	1/2	5/16
18	6	1/2	1	5/8	3/8
20	7	5/8	1 1/4	5/8	3/8
22	7 1/2	5/8	1 1/4	5/8	7/16
24	8	3/4	1 1/4	5/8	7/16
26	8 1/2	3/4	1 1/4	5/8	1/2
28	10	7/8	1 1/2	3/4	1/2
30	10	7/8	1 1/2	3/4	5/8
36	12	1	2	7/8	3/4
42	14	1	2	7/8	3/4
48	16	1 1/4	2	1 1/8	1
60	20	1 1/4	2	1 1/4	1 1/8

NOTE These are not safety flanges and should be used only in connection with safety guards