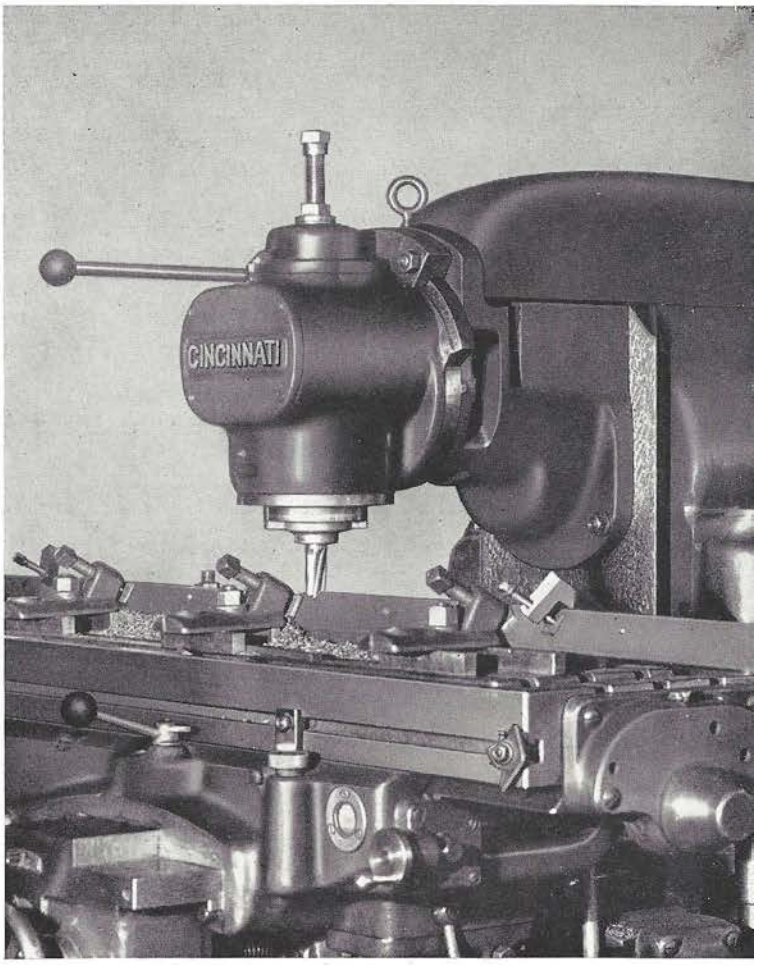
SPECIFICATIONS

Cincinnati
HEAVY VERTICAL MILLING ATTACHMENT

When ordering an attachment give serial number and letter stamped below spindle on face of column of machine on which it is to be used.



● Heavy Vertical Milling Attachment on a CINCINNATI Dial Type Milling Machine, set up for milling angular slots in a long steel bar.

Every machine shop has some work which can be handled to advantage on a vertical miller. When there is not enough of this work to keep a vertical miller busy, your CINCINNATI horizontal machines can be adapted to vertical milling by using the Heavy Vertical Milling attachment. Due to its semi-universal design, this attachment is especially valuable as part of the Tool Room equipment.

Attachments ordered for modern machines will be equipped with No. 50 standard spindle nose (see notes 1 and 2, other side, for old style machines). This construction offers the advantage of interchangeability of shell end mill arbors, collet adapters, etc., between the machine and attachment spindles.

Rigid support is assured by clamping the body of the attachment to the machine overarm and also to the face of the column. Quietness and smooth operation are obtained by using a helical and spiral bevel gear drive. Gears and shafts are made of heat-treated alloy steel. The entire drive, which is lubricated by an efficient pressure grease lubricating system, rolls on anti-friction bearings. The spindle may be swiveled 90° (45° either way from the vertical) in a plane parallel to the face of the machine column.

STANDARD EQUIPMENT . . . Supplied with the Attachment

Draw-in bolt. Driving gear. Arbor for driving gear (fitted with locknut and washer)—for all except Nos. 4 and 5 High Power Machines. Stud for coolant holder clamp (where necessary). Set of screws. Additional for Nos. 4 and 5 H. P. only—two clamps for bracket on column. One small wrench. Additional for old style machines (where necessary)—spanner wrench.

THE CINCINNATI MILLING MACHINE CO., CINCINNATI 9, OHIO, U. S. A.

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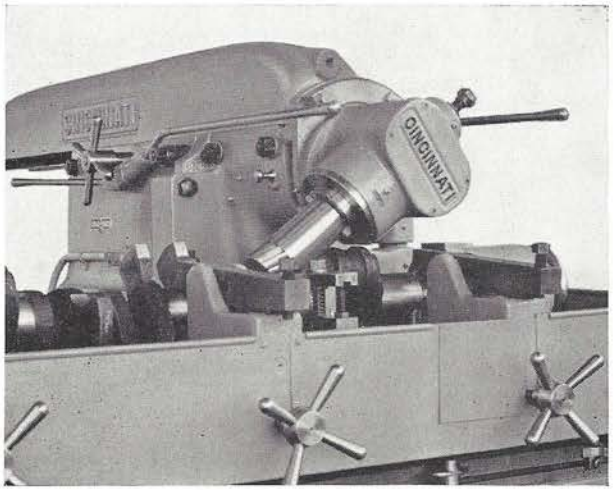
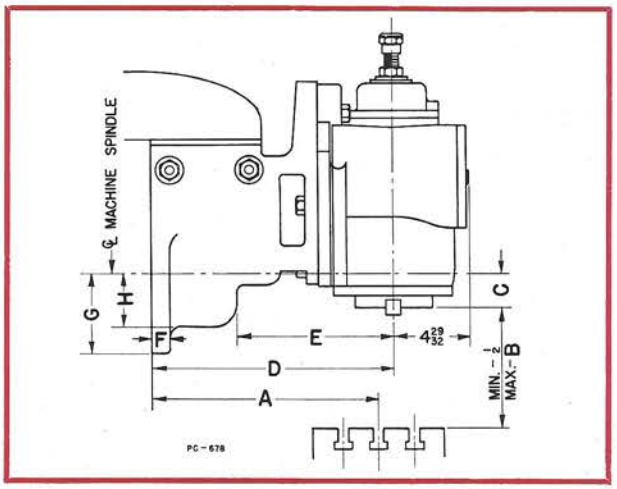


● Heavy Vertical Milling Attachment, on a CINCINNATI No. 5 High Power Milling Machine, set at an angle for milling bevels on crank shafts.



● Dimensional drawing of CINCINNATI Heavy Vertical Milling Attachment. Dimensions are listed in table below.

GENERAL SPECIFICATIONS

Size and Type of Machine		DIMENSIONS (See Dimensional Drawing) A Max.	A Min.	B	C	D	E	F	G	H	Longitudinal Range of Machine	Standard Flanged Spindle End	Net Weight	Shipping Weight Approx.	Code Name
2-ML	Pl.	17 3/8"	7 3/8"	14 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	3 21/32"	3 21/32"	28	No. 50	230 lbs.	280 lbs.	VERMI
	Un.	17 3/8"	7 3/8"	13 5/8"											
2-MI	Pl.	17 3/8"	7 3/8"	16 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	3 21/32"	3 21/32"	28	No. 50	230 lbs.	280 lbs.	VERMI
	Un.	17 3/8"	7 3/8"	15 5/8"											
2 Dial Type	Pl.	19 7/8"	9 3/16"	16 13/16"	2 3/8"	12 1/2"	7"	1 1/8"	5 3/8"	3 5/8"	28	No. 50	270 lbs.	330 lbs.	VEDOM
	Un.	19 7/8"	9 3/16"	15 13/16"											
3 Dial Type	Pl.	23 5/16"	10 13/16"	18 1/16"	2 3/8"	16"	10 1/2"	1 1/8"	5 3/8"	3 5/8"	34	No. 50	340 lbs.	420 lbs.	VEROM
	Un.	23 5/16"	10 13/16"	17 1/16"											
4 Dial Type	Pl.	25 7/8"	11 1/4"	18 1/16"	2 3/8"	16"	10 1/2"	1 1/8"	5 3/8"	3 5/8"	42	No. 50	340 lbs.	420 lbs.	VEROM
	Un.	25 7/8"	11 1/4"	17 1/16"											
3 H. P. and D. P. Dial Type	Pl.	23"	11"	16 5/8"	2 3/8"	15 3/4"	9 5/8"	1 1/8"	5 3/8"	3 5/8"	34	No. 50	340 lbs.	420 lbs.	VERDH
	Un.	23"	11"	15 5/8"											
4 H. P. and D. P. Dial Type	Pl.	25 7/8"	11 7/8"	17 5/8"	2 3/8"	17 5/8"	11 1/2"	1 1/8"	5 3/8"	3 5/8"	42	No. 50	370 lbs.	450 lbs.	VERDH
	Un.	25 7/8"	11 7/8"	16 5/8"											
5 and 6 H. P. and D. P. Dial Type	Pl.	27"	13"	17 5/8"	2 3/8"	19 3/4"	13 5/8"	1 1/8"	5 3/8"	3 5/8"	No. 5-50 No. 6-60	No. 50	440 lbs.	520 lbs.	VERDH
	Un.	27"	13"	16 5/8"											
1-M	Pl.	14 1/8"	6 1/8"	16 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	3 5/8"	3 5/8"	22	No. 50	230 lbs.	280 lbs.	VERVY
	Un.	14 1/8"	6 1/8"	15 5/8"											
2-L	Pl.	16 1/4"	5 7/8"	15 1/2"	2 3/8"	12 1/2"	7"	1 1/8"	3 5/8"	3 5/8"	28	No. 50	230 lbs.	280 lbs.	VERLT
	Un.	16 1/4"	5 7/8"	13 5/8"											
2-MH	Pl.	16 1/4"	5 7/8"	17 3/8"	2 3/8"	12 1/2"	7"	1 1/8"	3 5/8"	3 5/8"	28	No. 50	230 lbs.	280 lbs.	VERMH
	Un.	16 1/4"	5 7/8"	15 5/8"											
2-M	Pl.	16 1/8"	6 1/8"	16 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	3 5/8"	3 5/8"	28	No. 50	230 lbs.	280 lbs.	VERVY
	Un.	16 1/8"	6 1/8"	15 5/8"											
2-H. P.	Pl.	20 7/16"	10 7/16"	16 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	4"	3 5/8"	28	No. 50	270 lbs.	355 lbs.	GIPSY
	Un.	20 1/8"	10 1/8"	15 5/8"											
3-Std	Pl.	22 7/16"	10 7/16"	17 5/8"	2 3/8"	12 1/2"	7"	1 1/8"	4"	3 5/8"	34	No. 50	270 lbs.	355 lbs.	GOFPA
	Un.	22 1/8"	10 1/8"	16 5/8"											
3-H. P.	Pl.	23 1/4"	11 1/4"	17 5/8"	2 3/8"	16"	10 1/2"	1 1/8"	5 7/8"	3 5/8"	34	No. 50	295 lbs.	370 lbs.	GIRBA
	Un.	23 1/4"	11 1/4"	16 5/8"											
4-Std	Pl.	25 1/4"	11 1/4"	17 5/8"	2 3/8"	16"	10 1/2"	1 1/8"	5 7/8"	3 5/8"	42	No. 50	295 lbs.	370 lbs.	HEVER
	Un.	26 3/8"	12 3/8"	17 5/8"											
4-H. P.	Pl.	26"	11 9/16"	18 1/2"	1 1/2"	18"	12 7/8"	1 5/8"	7 5/8"	4 3/8"	42	No. 50	420 lbs.	500 lbs.	FOVER
	Un.	26 3/4"	12 5/16"	18 1/2"											
5-H. P.	Pl.	27 5/8"	13 1/8"	19 1/2"	1 1/2"	20"	14 7/8"	1 5/8"	7 1/8"	4 3/8"	50	No. 50	570 lbs.	620 lbs.	GOLFE
	Un.	27 5/8"	13 1/8"	18 1/2"											
2 Dial Type	Pl.	19 7/8"	9 3/16"	16 13/16"	2 3/8"	12 1/2"	7"	1 1/8"	5 3/8"	3 5/8"	28	No. 50	270 lbs.	330 lbs.	VEDIA
	Un.	19 7/8"	9 1/2"	15 13/16"											
3 Dial Type	Pl.	23 5/16"	10 13/16"	18 1/16"	2 3/8"	16"	10 1/2"	1 1/8"	5 3/8"	3 5/8"	34	No. 50	340 lbs.	420 lbs.	VERNU
	Un.	23 5/16"	11 1/16"	17 1/16"											
4 Dial Type	Pl.	25 7/8"	11 1/4"	18 1/16"	2 3/8"	16"	10 1/2"	1 1/8"	5 3/8"	3 5/8"	42	No. 50	340 lbs.	420 lbs.	VERNU
	Un.	25 7/8"	11 9/16"	17 1/16"											

SPECIAL NOTES:

(1) Heavy Vertical Milling Attachments may also be obtained for Cone Type Millers. For Nos. 1 and 2 Cone Type these attachments are equipped with 2"-8 threaded end spindle nose and a No. 10 B. & S. taper hole, conforming to the machine spindle. For 3 and 4 Cone Type Millers, the attachment spindle nose is standard 5 5/16" diameter, with a No. 12 B. & S. taper hole.

(2) Heavy vertical milling attachment for all machines other than Cone Type Millers will be equipped with spindles having the national standard taper (3 1/2" per foot) and national standard spindle end, regardless of the kind of nose and taper of machine spindle, unless we are specifically instructed to the contrary. No. 14 B. & S. taper hole in spindle may be obtained at extra cost.

(3) Spindle speeds of attachment are the same as indicated spindle speeds of machine.