

MCR.

SLIDE-GUIDED MACHINING CENTRES.

The perfect solution for all applications calling for heavy-duty cutting with optimum damping characteristics, coupled with high-precision fine machining. BW offers seven different types up to 4,800 mm workpiece swing diameter and up to 20,000 kg payload.



MCR – THE ULTRA-HEAVY SERIES.

PURE POWER FOR DIFFICULT MACHINING TASKS.

MCR machining centres are very robustly dimensioned and feature high-performance spindle units. In addition to the cast-iron gantry column, extra-wide laser-hardened sliding guides guarantee optimum damping characteristics during machining of difficult materials as well as very high long-term precision due to extremely low surface pressures.










The extra-wide sliding guides are hand-scraped by experienced specialists and designed all-round as sliding guides.



The particularly large guide length and width of the thermally inert cast-iron gantry column guarantee high stability, even when machining in high spindle positions.

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TECHNICAL DATA.

MCR (Metric System)	Unit	800	900		1000	1100	1200	1400	1600
									
Working range X Y Z (standard)	mm	1,250 900 1,250	1,600 1,250 1,250		2,200 1,250 1,250	1,600 1,250 1,250	2,400 1,800 1,800	3,200 1,800 1,800	3,500 2,200 2,100
Working range X Y Z (optional)	mm	1,250 900 1,600	1,600 1,500 1,600		2,400 1,500 1,600	1,600 1,500 1,600	2,800 2,200 2,100	3,500 2,200 2,100	4,100 2,200 2,100
Workpiece swing diameter Ø x h	mm	1,500x1,300	1,700x1,750		2,200x1,900	1,700x1,750	2,800x2,100	3,200x2,300	3,500x2,600
Pallet size (standard)	mm	800x800	800x1,000		1,000x1,250	800x1,000	1,000x1,250	1,600x1,600	2,000x2,000
Pallet size (optional)	mm	630x800, 800x1,000	800x800		1,000x1,600	800x800	1,400x1,600	1,600x2,000	2,000x2,500
Pallet load (optional)	kg	2,500	3,500		5,000	4,000	7,000	12,000 (14,000)	18,000 (20,000)
Feed force X Y Z	kN	17 17 17	20 20 20		30 20 20	25 25 25	30 30 30	30 30 30	30 30 30
Rapid traverse X Y Z (standard axis travel)	m/min	30 30 30	30 30 30		20 30 30	30 30 30	20 20 20	30 20 20	30 20 20
Pa ¹ X Y Z	mm	0,005	0,005		0,007	0,005	0,007	0,007	0,007
B-axis	degrees	360,000x0.001	360,000x0.001		360,000x0.001	360,000x0.001	360,000x0.001	360,000x0.001	360,000x0.001
Table speed	rpm	25	20		10	20	10	8	6
Tilting torque	Nm	26,000	40,000		60,000	40,000	60,000	100,000	100,000
Tangential torque	Nm	16,000	25,000		40,000	25,000	40,000	60,000	60,000
Spindle power 100 % duty rating (optional) ³	kW	41	41		41	52	41 (60)	41 (60)	41 (60)
Torque 100 % duty rating (optional) ³	Nm	1,220	1,220		1,220	1,720	1,220 (3,500)	1,220 (3,500)	1,220 (3,500)
Speed range 2 gear steps (optional)	rpm	20 – 5,500 (7,000)	20 – 5,500 (7,000)		20 – 5,500 (7,000)	20 – 5,500 (7,000)	20 – 5,500 (7,000)	20 – 5,500 (7,000)	20 – 5,500 (7,000)
Speed range 4 gear steps (optional)	rpm						20 – 4,000 (5,000)	20 – 4,000 (5,000)	20 – 4,000 (5,000)
Speed range optional swivel spindle	rpm	8,000	8,000		8,000		8,000	8,000	8,000
Gear steps (optional)		2	2		2	2	2 (4)	2 (4)	2 (4)
Bearing diameter main spindle (optional) ³	mm	120	120		120	120	120 (130)	120 (130)	120 (130)
Tool adapter (standard)		HSK-A 100	HSK-A 100		HSK-A 100	HSK-A 100	HSK-A 100	HSK-A 100	HSK-A 100
Tool adapter (optional)		ISO 50	ISO 50		ISO 50	ISO 50	ISO 50	ISO 50	ISO 50
Number of tool pockets		128 – 608	128 – 608		128 – 608	128 – 608	128 – 608	128 – 608	128 – 608
Tool diameter	mm	125/350 (420/900) ²	125/350 (420/900) ²		125/350 (420/900) ²	125/350 (420/900) ²	125/350 (420/900) ²	125/350 (420/900) ²	125/350 (420/900) ²
Tool length (optional)	mm	600 (900/1,200)	600 (900/1,200)		600 (900/1,200)	600 (900/1,200)	600 (900/1,200)	600 (900/1,200)	600 (900/1,200)
Tool weight (optional)	kg	60 (75)	60 (75)		60 (75)	60 (75)	60 (75)	60 (75)	60 (75)
Machine control, Siemens Sinumerik		SIN 840D sl	SIN 840D sl		SIN 840D sl	SIN 840D sl	SIN 840D sl	SIN 840D sl	SIN 840D sl
Floor space required, LxWxH, approximately	mm	9,300x6,700x4,200	10,400x7,600x5,200		11,000x9,300x5,200	10,400x7,600x5,200	11,700x9,900x6,000	14,700x10,900x6,000	15,700x10,900x6,000
Weight approximately	kg	35,000	41,000		49,000	47,000	59,000	71,000	91,000
Compatible machining units		H, HVP, HVC	H, HVP, HVC		H, HVP, HVC	H	H, HVP, HVC	H, HVP, HVC,	H, HVP, HVC,

¹ according to VDI/DGQ 3441




² bar tool

³ 4 gear steps

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TECHNICAL DATA.

MCR (Imperial System)	Unit	800	900		1000	1100	1200	1400	1600
									
Working range X Y Z (standard)	in	49.21 35.43 49.21	63.00 49.21 49.21		86.61 49.21 49.21	63.00 49.21 49.21	94.49 70.87 70.87	126.00 70.87 70.87	137.80 86.61 82.68
Working range X Y Z (optional)	in	49.21 35.43 63.00	63.00 59.10 63.00		94.49 59.10 63.00	63.00 59.10 63.00	110.24 86.61 82.68	137.80 86.61 82.68	161.42 86.61 82.68
Workpiece swing diameter Ø x h	in	59.10x51.18	66.93x68.90		86.61x74.80	66.93x68.90	110.24x82.68	126.00x90.55	137.80x102.36
Pallet size (standard)	in	31.50x31.50	31.50x39.37		39.37x49.21	31.50x39.37	39.37x49.21	63.00x63.00	78.74x78.74
Pallet size (optional)	in	31.50x39.37	31.50x31.50		39.37x63.00	31.50x31.50	55.12x63.00	63.00x78.74	78.74x98.43
Pallet load (optional)	lbs	5,512	7,716		11,023	8,818	15,432	26,455	44,092
Feed force X Y Z	lb	3,822 3,822 3,822	4,496 4,496 4,496		6,744 4,496 4,496	5,620 5,620 5,620	6,744 6,744 6,744	6,744 6,744 6,744	30 30 30
Rapid traverse X Y Z (standard axis travel)	in/min	1,181 1,181 1,181	1,181 1,181 1,181		787 1,181 1,181	1,181 1,181 1,181	787 787 787	1,181 787 787	1,181 787 787
Pa ¹ X Y Z	in	0.000197	0.000197		0.000276	0.000197	0.000276	0.000276	0.000276
B-axis	degrees	360,000x0.001	360,000x0.001		360,000x0.001	360,000x0.001	360,000x0.001	360,000x0.001	360,000x0.001
Table speed	rpm	25	20		10	20	10	8	6
Tilting torque	lb/in	230,120	354,030		531,045	354,030	531,045	885,075	885,075
Tangential torque	lb/in	141,612	221,270		354,030	221,270	354,030	531,045	531,045
Spindle power 100% duty rating (optional) ³	HP	55	55		55	70	55 (80)	55 (80)	55 (80)
Torque 100% duty rating (optional) ³	lb/in	10,798	10,798		10,798	15,223	10,798 (30,978)	10,798 (30,978)	10,798 (30,978)
Speed range 2 gear steps (optional)	rpm	20 – 5,500 (10,000)	20 – 5,500 (10,000)		20 – 5,500 (10,000)	20 – 5,500 (10,000)	20 – 5,500 (10,000)	20 – 5,500 (10,000)	20 – 5,500 (10,000)
Speed range 4 gear steps (optional)	rpm						20 – 4,000 (5,000)	20 – 4,000 (5,000)	20 – 4,000 (5,000)
Speed range optional swivel spindle	rpm	8,000	8,000		8,000		8,000	8,000	8,000
Gear steps (optional)		2	2		2	2	2 (4)	2 (4)	2 (4)
Bearing diameter main spindle (optional) ³	in	4.7244	4.7244		4.7244	4.7244	4.7244 (5.1181)	4.7244 (5.1181)	4.7244 (5.1181)
Tool adapter (standard)		HSK-A 100	HSK-A 100		HSK-A 100	HSK-A 100	HSK-A 100	HSK-A 100	HSK-A 100
Tool adapter (optional)		ISO 50	ISO 50		ISO 50	ISO 50	ISO 50	ISO 50	ISO 50
Number of tool pockets		128 – 608	128 – 608		128 – 608	128 – 608	128 – 608	128 – 608	128 – 608
Tool diameter	in	4.92/13.78 (16.54/35.43) ²	4.92/13.78 (16.54/35.43) ²		4.92/13.78 (16.54/35.43) ²	4.92/13.78 (16.54/35.43) ²	4.92/13.78 (16.54/35.43) ²	4.92/13.78 (16.54/35.43) ²	4.92/13.78 (16.54/35.43) ²
Tool length (optional)	in	23.62 (35.43/47.24)	23.62 (35.43/47.24)		23.62 (35.43/47.24)	23.62 (35.43/47.24)	23.62 (35.43/47.24)	23.62 (35.43/47.24)	23.62 (35.43/47.24)
Tool weight (optional)	lbs	132.3 (165.3)	132.3 (165.3)		132.3 (165.3)	132.3 (165.3)	132.3 (165.3)	132.3 (165.3)	132.3 (165.3)
Machine control, Siemens Sinumerik		SIN 840D sl	SIN 840D sl		SIN 840D sl	SIN 840D sl	SIN 840D sl	SIN 840D sl	SIN 840D sl
Floor space required, LxWxH, approximately	in	366x264x165	409x299x205		433x366x205	409x299x205	461x388x236	579x429x236	618x429x236
Weight approximately	lbs	77,160	90,390		108,020	103,610	130,070	156,520	200,620
Compatible machining units		H, HVP, HVC	H, HVP, HVC		H, HVP, HVC	H	H, HVP, HVC	H, HVP, HVC,	H, HVP, HVC,

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