



Flange Facing

A Buyers Guide

About Mirage Machines



Mirage portable machine tools optimise the performance of on-site assets by achieving operational excellence, maximising uptime and improving productivity.

Our proprietary technology drives the development of the most reliable, durable, efficient and precise portable machine tools on the market, that are capable of delivering the most exacting standards of tolerance with the highest quality output.



Our portfolio of portable machine tools are suitable for a diverse range of on-site machining applications. Mirage have been granted ISO 9001:2008 certification for our design and manufacturing systems and we are able to provide full CE certification for our products.

Industries



Mirage manufacture a range of portable machines for a wide variety of applications and industries including:

- oil & gas
- wind power
- power generation
- ship build & repair
- mining & construction
- subsea
- utilities



Our products are supported by industry experts who work closely with our customers to optimise performance for industry specific applications. With extensive experience within service companies, our teams understand the dynamics of a wide range of industries and have the capability to deliver turn-key solutions that both meet specific requirements and address complex challenges.

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Introduction to Flange Facing

Mirage Machines are proud manufacturers of high performance on-site machine tools. Since 1993 we have been producing portable machine tools that help to maintain operational excellence and maximise uptime of on-site assets.

Our flange facing machines offer unparalleled performance with our range carrying some of the most reliable, durable, efficient and precise flange facing machines on the market. The patented 360° powered tool post technology makes the operation of these machines easy and reduces operational risks.

The Mirage flange facing machines can be used for a wide range of applications including:

- Rise face flanges
- RTJ grooves
- Heat exchanger flanges
- Techlok flanges
- Recessed gaskets and spigots
- Weld preps
- Hub profiles
- Lens ring joints
- SPO compact flanges
- Swivel ring flanges



Mirages range of internal and external mounting flange facing machines offer innovative design with the latest linear and ball screw technology, utilising our patented power feed tool posts.

- Easy setup
- Independent locking base
- Delivered ready for use for standard flanges and seal groove configuration

Machine Model	Facing range					Drive Power Options	
	0	30	60	90	120	Air	Hydraulic
Externally Mounted							
MM200e	0 - 8"					●	
MM300e	0 - 12"					●	
MM600e	0 - 24"					●	●
Externally & Internally Mounted							
MM1080ie	Ext. 0 - 40"						

MM300e



Flange Facing
0 to 305mm (0 to 12") diameters

- Lightweight
- Swivel toolpost for RTJ grooves
- Quick one man set up

MM600e



Flange Facing
0 to 610mm (0 to 24") diameters

- Precision helical drive
- Patented powered swivel tool post
- Quick set up

MM1080ie



Flange Facing
0 to 3000mm (0 to 120") diameters

- Maximum versatility with inside / outside mount
- Patented powered swivel tool post
- Independent internal / external base

MM305i



Flange Facing
50 to 305mm (2 to 12") diameters

- Lightweight
- Swivel toolpost for RTJ grooves
- Quick one man set up

MM610i



Flange Facing
50 to 610mm (2 to 24") diameters

- Lightweight
- High torque drive
- Quick set up

MM860i



Flange Facing
150 to 762mm (6 to 34") diameters

- High torque low noise drive
- Manual swivel tool post
- Quick set up adjustable base jaws

MM1000i



Flange Facing
150 to 1000mm (6 to 40") diameters

- High torque low noise drive
- Patented powered swivel tool post
- Quick set up adjustable base jaws

MM1500i



Flange Facing
300 to 1500mm (12 to 60") diameters

- High torque low noise drive
- Patented powered swivel tool post
- Quick set up adjustable base jaws

MM2000i



Flange Facing
610 to 2000mm (24 to 80") diameters

- High torque precision drive
- Patented powered swivel tool post
- Quick set up large & small base

MM3000i



Flange Facing
1145 to 3000mm (45 to 120") diameters

- High torque precision drive
- Patented powered swivel tool post
- Quick set up fabricated base

0 - 8" (0 - 203mm)

An externally mounted flange facing machine for most types of flange facing.



- Lightweight, precision construction to optimise on-site performance
- Ideal for restricted access and low clearance situations
- Geared continuous groove facing feeds for gramophone finish (ASME Standard)
- Swivel tool post for a range of machining applications

The MM200e machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting feet, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	0mm	0"
Maximum Facing Diameter	203mm	8"
Minimum Clamping Diameter	90mm	3.54"
Maximum Clamping Diameter	213mm	8.386"
Tool Post Travel	25mm	1"
R.P.M	Min: 0	Max: 40
Drive – Pneumatic @ 90 P.S.I (6 bar)	0.8 Kw	1.1 Hp
Air Consumption / Supply Required	1.59 m ³ /min	56 S.C.F.M

Facing Feed Rates

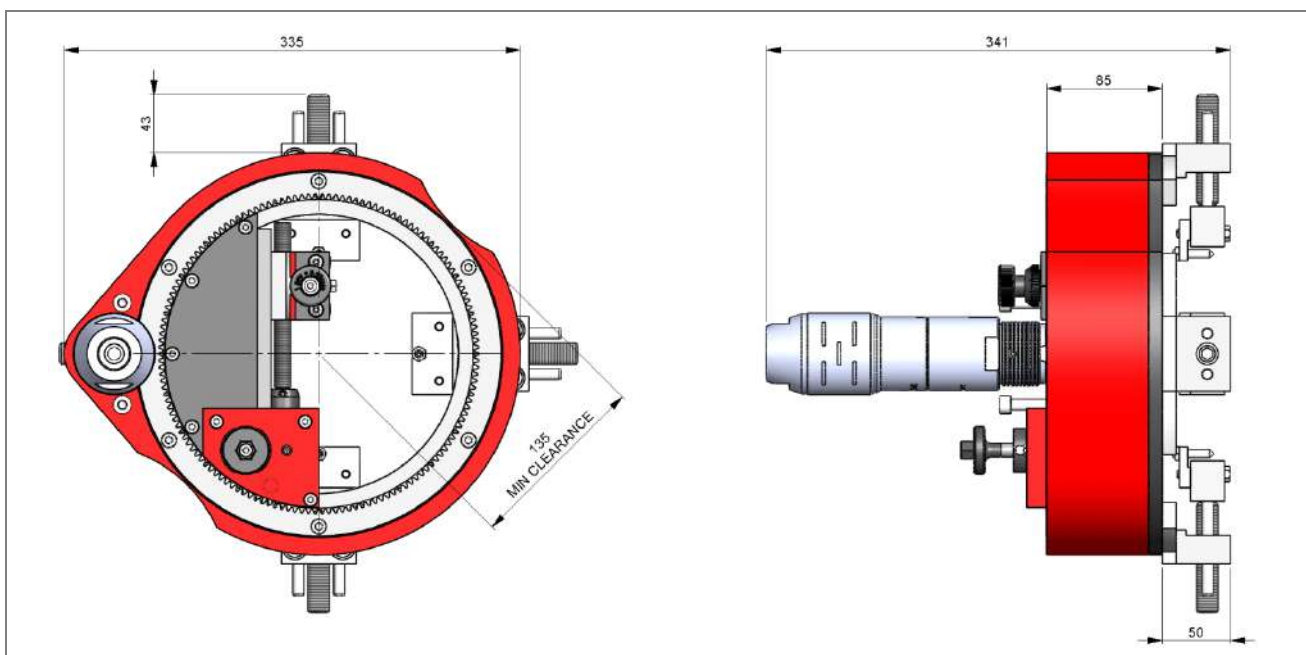
	mm/rev	inches/rev	grooves per cm	grooves per inches
1.0mm Pitch Lead Screw (optional)	0.290	0.011	36	92
1.25mm Pitch Lead Screw (optional)	0.370	0.014	29	73
1.75mm Pitch Lead Screw (standard)	0.520	0.020	20	52

Weights

Machine Weight	23kg	50.7lbs
Shipping Weight	41kg	90lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
820	33	540	22	350	14



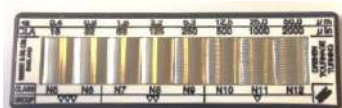
Optional Accessories



MM200e-SK
2 years Recommended Spares Kit



RBC0130
Surface Comparator – Multi Discipline



RBC0120
Surface Comparator

0 – 12" (0 – 305mm)

An externally mounted flange facing machine for all types of flange facings, seal groove machining, weld preparation and counter boring.



- **Lightweight, precision construction to optimise on-site performance**
- **Preloaded cross roller drive, ensuring robust, repeatable machining**
- **Geared continuous groove facing feeds for gramophone finish (ASME Standard)**
- **Swivel tool post for groove details included; no requirement for separate accessories**

The MM300e machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting feet and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	0mm	0"
Maximum Facing Diameter	305mm	12"
Minimum Clamping Diameter	70mm	2.75"
Maximum Clamping Diameter	305mm	12"
Tool Post Travel	50mm	2"
R.P.M	Min: 0	Max: 27
Drive – Pneumatic @ 90 P.S.I (6 bar)	0.8 Kw	1.1Hp
Air Consumption / Supply Required	1.6 m ³ /min	56.5 S.C.F.M

Facing Feed Rates

	mm/rev	inches/rev		grooves per inch		mm/rev	inches/rev		grooves per inch
0.75mm pitch lead screw (standard)					1.00mm pitch lead screw (standard)				
Fine	0.130	0.00512		195	0.160	0.00629		166	
Coarse	0.510	0.0201		49.8	0.64	0.0251		40	
1.25mm pitch lead screw (optional)					1.75mm pitch lead screw (optional)				
Fine	0.220	0.009		115	0.300	0.012		85	
Coarse	0.900	0.035		28	1.250	0.050		20	

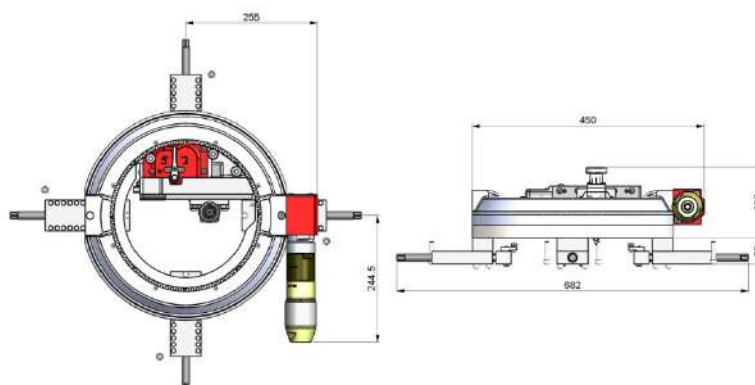
Other options available - enquire for further details.

Weights

Machine Weight	45kg	119lbs
Shipping Weight	90kg	198lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
640	25	600	24	450	18



Optional Accessories



RTJM600
RTJ Measuring Kit



MM300e-12
Boring Bar Saddle and Feed
(180 – 360mm diameter) –
12" stroke



PP1
11 KW 3 Phase Power Pack -
56 L.P.M up to 100 BAR



MM300e-SK
2 years Recommended Spares
Kit



MM300eCF-3
Compact Flange Machining
Kit D Section



RBC0130
Surface Comparator – Multi
Discipline



RBC0120
Surface Comparator

MM300e-15
Hydraulic Drive Conversion
Kit

MM300e-LRK
Lens Ring Machining Kit

0 – 24" (0 - 610mm)

Rev 1.0

An externally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation and counter boring.



- Helical drive for superior surface finish
- Swivel tool post for groove details included; no requirement for separate accessories
- Geared continuous groove facing feeds for gramophone finish (ASME Standard)
- Auto-axial boring feed, improving machining application

The MM600e machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting feet and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	0mm	0"
Maximum Facing Diameter	500mm	19.685"
Minimum Clamping Diameter	310mm	12.2"
Maximum Clamping Diameter	610mm	24"
Tool Post Travel	102mm	4"
R.P.M	Min: 0	Max: 18
Drive – Pneumatic @ 90 P.S.I (6 bar)	3.0 Kw	3.96 Hp
Air Consumption / Supply Required		90 S.C.F.M

Facing Feed Rates

	mm/rev	inches/rev	grooves per cm	grooves per inch
1.25mm Pitch Lead Screw (optional)				
Fine	0.200	0.008	51	130
Coarse	0.390	0.015	26	65
1.75 Pitch Lead Screw (standard)				
Fine	0.275	0.011	37	93
Coarse	0.550	0.022	18	46

Boring Feeds

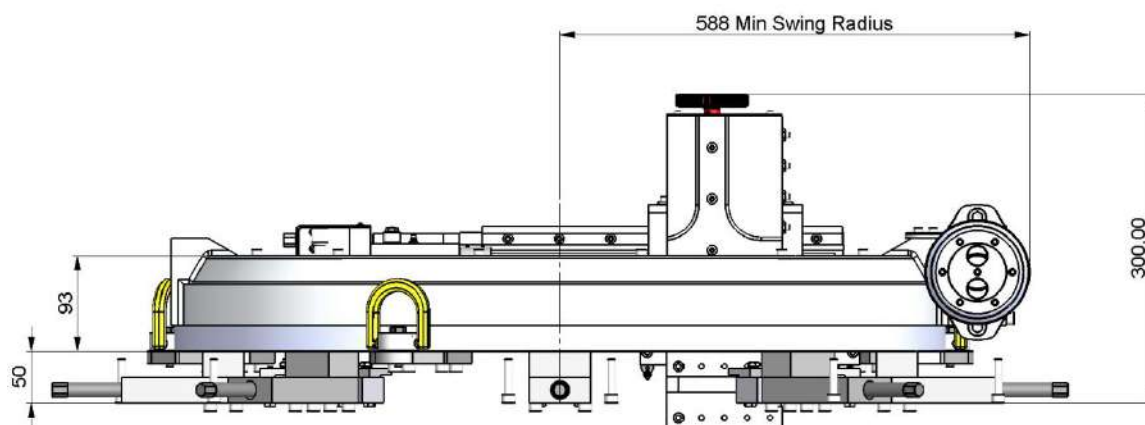
Fine	0.180	0.007
Coarse	0.360	0.015

Weights

Machine Weight	143kg	315lbs
Shipping Weight	193kg	425.5lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
980	39	960	38	440	18



Optional Accessories



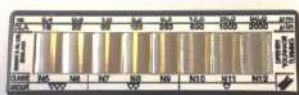
RTJM600
RTJ Measuring Kit



MM600e-SK
2 years Recommended Spares Kit



MM600e-30
Compact Flange Machining Kit



RBC0120
Surface Comparator



RBC0130
Surface Comparator – Multi Discipline

MM600e-14
Hydraulic Drive Conversion Kit

MM600e-9
Boring Bar Saddle and Feed (150 – 610mm diameter) – 1000mm stroke

6 – 40" (153 – 1000mm)

An internally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation and counter boring.



- Latest linear technology – delivering a robust, reliable operation
- Powered 360° tool post – for a wider range of machining operations
- Three speed continuous feed gearbox, for gramophone finish
- Quick set adjustable clamping jaws, minimising set up time

The MM1000i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting base and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	153mm	6"
Maximum Facing Diameter	1010mm	39.7"
Minimum Clamping Diameter	145mm	5.7"
Maximum Clamping Diameter	813mm	32"
Max Swing Diameter Required	1220mm	32"
Tool Post Travel – (geared automatic)	102mm	4"
R.P.M	Min: 0	Max: 24
Drive – Pneumatic @ 90 P.S.I (6 bar)	1.57Kw	2.1Hp
Air Consumption / Supply Required		67 S.C.F.M

Feed Rates

Facing Feed Rates (3 off In/Out)

Direction	Gear	mm/rev	inches/rev	grooves per cm	grooves per inch
Out	1	0.139	0.005	72	183
	2	0.217	0.009	46	117
	3	0.528	0.021	19	48
In	1	0.165	0.006	61	154
	2	0.258	0.010	39	98
	3	0.628	0.025	16	40

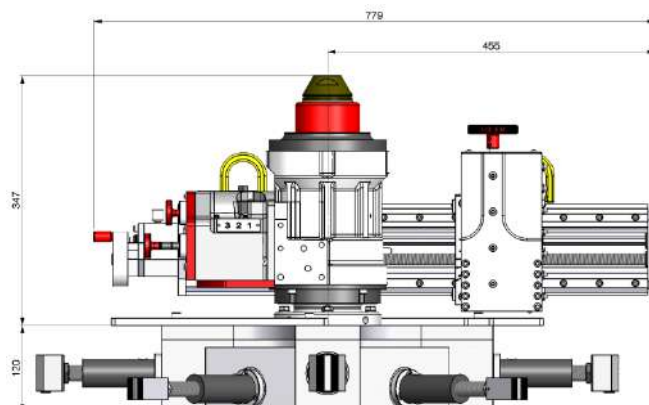
	mm/rev	inches/rev
Boring Feed Rates (3 off Up/Down)	0.05 – 0.10 – 0.20	0.002 – 0.004 – 0.008

Weights

Machine + bases Weight	140kg	308.6 lbs
Shipping Weight	208kg	458lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
840	33	600	24	720	28



Optional Accessories



RTJM1000
RTJ Measuring Kit



MM1000i-SK
2 years Recommended
Spares Kit



MM1000i-7
Heat Exchanger Mounting
Plate Kit



MM1000i-22
Heat Exchanger Back Facing
Kit



PP1
11 KW 3 phase power pack -
56 L.P.M up to 100 BAR



MM1000i-10
Hydraulic Orbital Milling Kit



RBCO130
Surface Comparator – Multi
Discipline

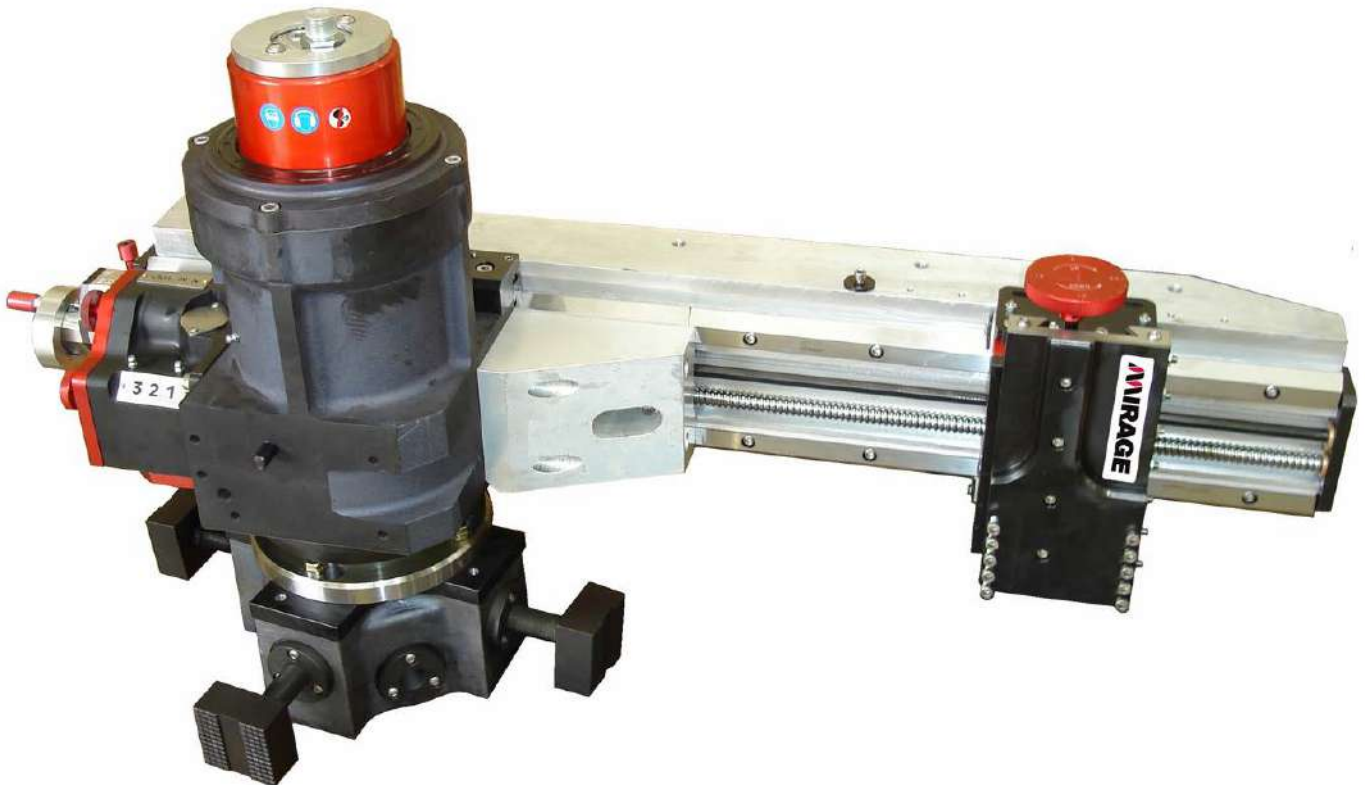


RBC0120
Surface Comparator

MM1000i-14
Hydraulic Drive Conversion
Kit

12 – 60" (305 – 1500mm)

An internally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation and counter boring.



- Latest linear technology – delivering a robust, reliable operation
- Swivel powered tool post – for a wider range of machining operations
- Quick set adjustable clamping jaws, minimising set up time
- Three speed continuous feed gearbox, for gramophone finish (ASME Standard)

The MM1500i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting bases and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	270mm	10.63"
Maximum Facing Diameter	1550mm	61"
Minimum Clamping Diameter	397mm	15.6"
Maximum Clamping Diameter	1400mm	55"
Tool Post Travel	100mm	4"
Tool Post Swivel Angle	+ / - 30°	
R.P.M	Min: 0	Max: 22
Drive – Pneumatic @ 90 P.S.I (6 bar)	3.0 Kw	4.0 Hp
Air Consumption / Supply Required		90 S.C.F.M

Feed Rates

Facing Feed Rates (3 off In/Out)

Direction	Gear	mm/rev	inches/rev	grooves per cm	grooves per inch
Out	1	0.130	0.00511	76	195
	2	0.203	0.007844	49	127
	3	0.494	0.01944	20	51
In	1	0.155	0.00061	65	164
	2	0.241	0.00948	41	105
	3	0.588	0.02314	17	43

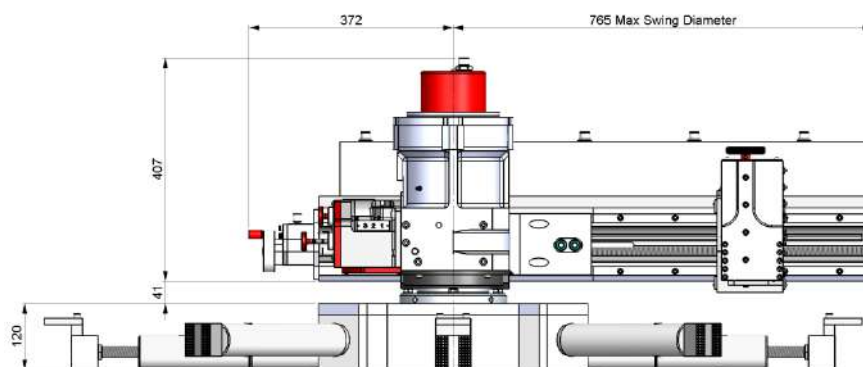
	Out - mm/rev	In - mm/rev
Boring Feed Rate - Out	0.02, 0.045, 0.12	0.04, 0.06, 0.13

Weights

Machine Weight (including arm)	155kg	341lbs
Independent Base Weights	25, 46, 67kg	55, 101, 147.7
Shipping Weight	500kg	1102lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
1230	48	820	32	830	33



Optional Accessories



RTJM1500
RTJ Measuring Kit



MM1500i-10
Hydraulic Orbital Milling Kit



MM1500i-SK
2 years Recommended Spares Kit



MM1000i-22
Heat Exchanger Back Facing Kit



MM1000i-7
Heat Exchanger Mounting Plate Kit



PP1
11 KW 3 Phase Power Pack - 56
L.P.M up to 100 BAR



RBC0130
Surface Comparator – Multi
Discipline



RBC0120
Surface Comparator

MM1000i-14
Hydraulic Drive Conversion Kit

24 – 80" (610 – 2000mm)

Rev 1.0

An internally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation, counter boring and heat exchanger repair.



- Latest linear technology, to deliver accurate and repeatable machining
- Three speed continuous feed gearbox, for flexible machine operation
- Quick set adjustable jaws, to minimise set-up time
- Swivel powered tool post which supports a wider range of machining applications

The MM2000i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting feet and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	610mm	24"
Maximum Facing Diameter	2032mm	80"
Minimum Clamping Diameter	700mm	27.5"
Maximum Clamping Diameter	1830mm	72"
Swing Diameter Required	1610mm	63.4"
Tool Post Travel – (360° swivel)	102mm	4"
R.P.M	Min: 0	Max: 18
Drive – Pneumatic @ 90 P.S.I (6 bar)	2.95 Kw	3.96 Hp
Air Consumption / Supply Required		90 S.C.F.M

Feed Rates

Facing Feed Rates (3 off In/Out)

Direction	Gear	mm/rev	inches/rev	grooves per cm	grooves per inch
Out	1	0.133	0.005	75	191
	2	0.208	0.008	48	122
	3	0.507	0.020	20	50
In	1	0.159	0.006	63	160
	2	0.248	0.010	41	103
	3	0.603	0.024	17	42

Boring Feed Rates Gears 1,2,3

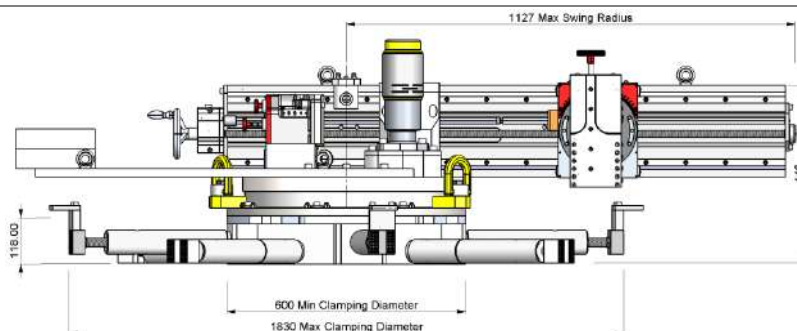
mm/rev	inches/rev
.03 .06 .15	

Weights









Machine Weight	365kg	805lbs
Shipping Weight (Box 1)	596kg	1314lbs
Shipping Weight (Box 2)	538kg	1186lbs

Shipping Dimensions

	Length		Width		Height	
	mm	inches	mm	inches	mm	inches
Box 1	1800	71	900	35	720	28
Box 2	1900	75	1250	49	570	22



Optional Accessories

 <p>MM2000i-SK 2 Years Recommended Spares Kit</p>	 <p>MM2000i-7 Heat Exchanger Mounting Plate Kit</p>
 <p>MM2000i-9 Hydraulic Orbital Milling Kit</p>	 <p>MM2000i-26 Heat Exchanger Back Facing Kit</p>
 <p>PP2 – Single Point Machining 11 KW 3 phase power pack – 60L.P.M up to 90 BAR</p> <p>PP3 – Orbital Milling 15 KW, 50LPM/20LPM pump, 100 BAR</p>	 <p>RBC0130 Surface Comparator – Multi Discipline</p>
 <p>RBC0120 Surface Comparator</p>	 <p>RTJM2000 RTJ Measuring Kit</p>
<p>MM2000i-14 Hydraulic Conversion Kit</p>	

45 – 120" (1150 – 3050mm)

Rev 1.0

An internally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation, counter boring and heat exchanger repair. An orbital milling option is also available with this machine.



- Latest linear technology incorporated, delivering accurate and repeatable machining
- Powered tool post through 360 degrees, supporting a wider range of machining applications
- Quick set adjustable clamping jaws, minimising set-up time
- Three continuous groove feed gearbox for flexible machine operation
- High torque reduction drive to optimise the machines performance

The MM3000i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting bases and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	1150mm	45"
Maximum Facing Diameter	3050mm	120"
Minimum Clamping Diameter	1120mm	44"
Maximum Clamping Diameter	2800mm	110"
Minimum Swing Diameter	2615mm	103"
Tool Post Travel	102mm	4"
R.P.M	Min: 0	Max: 12
Drive - Hydraulic	5.0Hp	3.73Kw
Drive – Pneumatic @ 90 P.S.I (6 bar)	4.0Hp	3.0Kw
Hydraulic Requirements @ 70 bar	10 gal/min	50lpm
Air Consumption / Supply Required	2.69 m ³ /min	98 S.C.F.M

Feed Rates

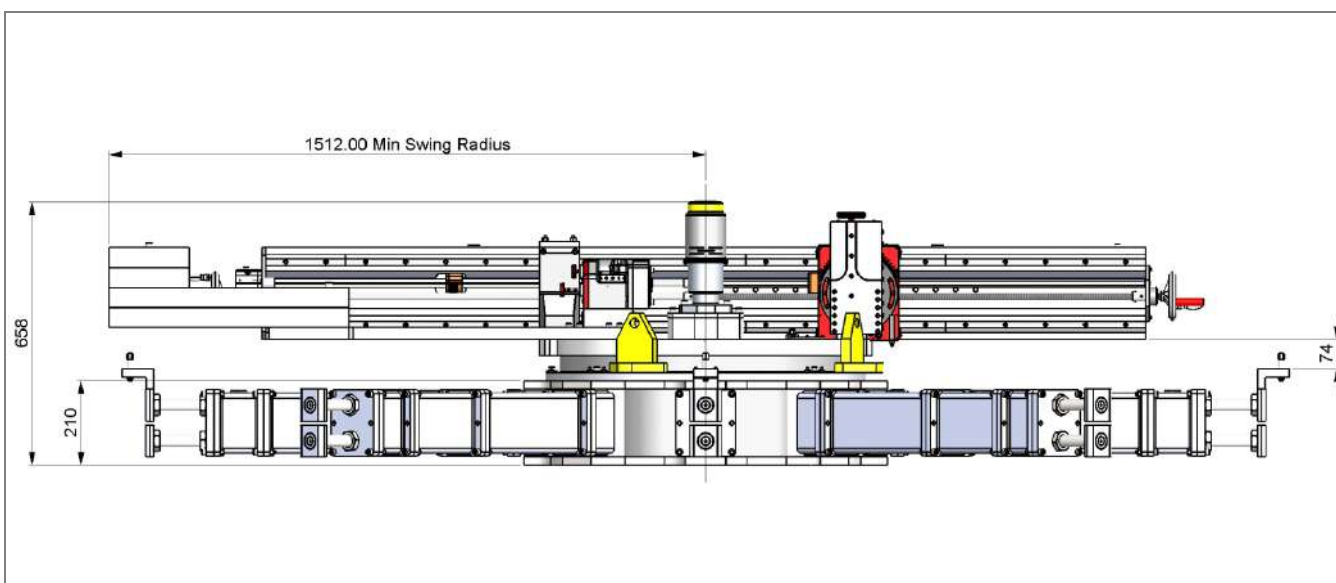
Facing Feed Rates (3 off In/Out)	0.20 – 0.32 – 0.81mm	0.008 – 0.012 – 0.032"
Boring Feed Rates (3 off Up/Down)	0.05 – 0.10 – 0.20mm	0.002 – 0.004 – 0.008"

Weights







Machine Weight (Box 1)	1050kg	2310lbs
Independent Base Weight (Box 2)	825kg	1815lbs
Machine Weight with Base	1375kg	3025lbs

Shipping Dimensions

	Length		Width		Height	
	mm	inches	mm	inches	mm	inches
Box 1	2850	112"	1000	40"	750	30"
Box 2	2000	78"	1150	45"	600	24"



Optional Accessories

 <p>MM3000i-SK 2 Years Recommended Spares Kit</p>	 <p>MM3000i-7 Hydraulic Orbital Milling Kit</p>
 <p>PP1 11 KW 3 Phase Power Pack - 56 L.P.M up to 100 BAR</p>	 <p>MM2000i-26 Heat Exchanger Back Facing Kit</p>
 <p>RBC0130 Surface Comparator – Multi Discipline</p>	 <p>RBC0120 Surface Comparator</p>
<p>MM3000i-8 Heat Exchanger Mounting Plate Kit</p>	

2 – 12" (50 x 305mm)

Rev 1.1

An internally mounted, lightweight and robust flange facing machine for all types of flange facing, seal grooving, weld preparation and counter boring.



- **Lightweight, precision construction to optimise on-site performance**
- **Geared continuous groove facing feeds for a gramophone finish (ASME Standard)**
- **Striker boring feeds, to complete a full range of application machining**
- **Quick set independent base for improved on-site operation**
- **Hardened slide ways to maintain long term accuracy**
- **Swivel tool post for groove details included; no requirement for separate accessories**

The MM305i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting feet and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	50mm	2"
Maximum Facing Diameter	305mm	12"
Minimum Clamping Diameter	50mm	2"
Maximum Clamping Diameter	230mm	9"
Tool Post Travel	50mm	2"
R.P.M	Min: 0	Max: 42
Drive – Pneumatic @ 90 P.S.I (6 bar)	0.8Kw	1.1Hp
Air Consumption / Supply Required	1.6 m ³ /min	56 S.C.F.M

Facing Feed Rates

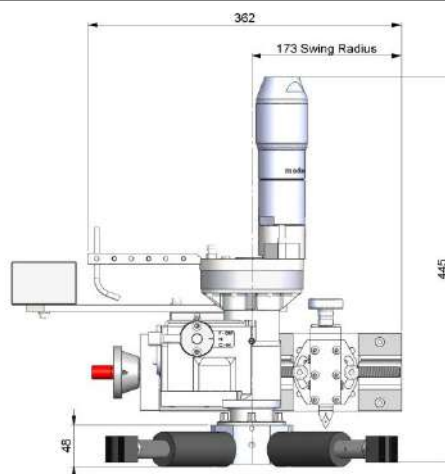
	mm/rev	inches/rev	grooves per cm	grooves per inch
1.0mm pitch feed screw (optional)				
Fine	0.114	0.004	88	224
Coarse	0.455	0.018	22	56
1.25mm pitch feed screw (standard)				
Fine	0.142	0.006	70	179
Coarse	0.568	0.022	18	45
1.75mm pitch feed screw (standard)				
Fine	0.199	0.008	50	128
Coarse	0.795	0.031	13	32

Weights

Machine Weight (Independent of Base)	15kg	33lbs
Shipping Weight	59kg	130lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
650	25	450	18	430	17



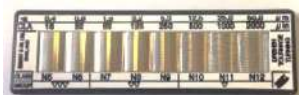
Optional Accessories



MM305i-SK
2 years Recommended Spares Kit



RBC0130
Surface Comparator – Multi Discipline



RBC0120
Surface Comparator

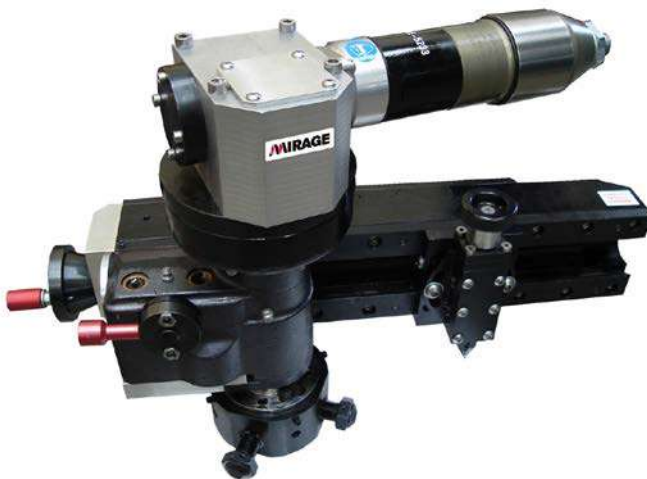
MM500i-11
1.5" Collet Base Assembly

MM500i-14
End Shaft Turning Kit

MM610i-LRK
Lens Ring Machining Kit

2 – 24" (50 – 610mm)

An internally mounted lightweight yet strong flange facing machine for all types of flange facing, seal groove machining, weld prep and counter boring.



- Helical drive for a superior finish
- Swivel tool post – for a wider range of machining operations
- Geared continuous groove facing feeds, for gramophone finish (ASME Standard)
- Quick set independent base, minimising set up time

The MM610i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting base and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	50mm	2"
Maximum Facing Diameter	610mm	24"
Minimum Clamping Diameter	50mm	2"
Maximum Clamping Diameter	560mm	22"
Tool Post Travel	40mm	1.57"
Tool Post Swivel Angle	+ / - 30°	
R.P.M	Min: 20	Max: 65
Drive – Pneumatic @ 90 P.S.I (6 bar)	0.8Kw	1.1Hp
Air Consumption / Supply Required		50 S.C.F.M
Minimum swing diameter	605mm	23.8"

Facing Feed Rates

	mm/rev	inches/rev	grooves per cm	grooves per inch
1.00mm Pitch Lead Screw (optional)				
Fine	0.114	0.004	88	224
Coarse	0.455	0.018	22	56
1.25mm Pitch Lead Screw (standard)				
Fine	0.142	0.006	70	179
Coarse	0.568	0.022	18	45
1.75mm Pitch Lead Screw (standard)				
Fine	0.199	0.008	50	128
Coarse	0.795	0.031	13	32

Weights

Machine Weight	21kg (+ 8kg base)	46.29 + 17.6lbs
Shipping Weight	65kg	143.3lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
650	25.5	450	17.7	430	16.9

Optional Accessories



MM1000i-SK
2 years Recommended
Spares Kit



PP1
11 KW 3 phase power pack
- 56 L.P.M up to 100 BAR



RBC0130
Surface Comparator –
Multi Discipline



RBC0120
Surface Comparator

MM610i-4
Hydraulic Conversion Kit

MM250i-3
2 - 12" Surfacing Arm

MM500i-14
Journal Turning
Attachment – Striker Feed

MM500i-11
1.5" Collet Base Assembly

MM610i-LRK
Lens Ring Machining Kit

6 – 34" (153 – 864mm)

Rev 1.1

An internally mounted flange facing machine for all types of flange facing, seal groove machining, weld preparation and counter boring.



- **Latest linear technology – delivering a robust, reliable operation**
- **Three speed continuous feed gearbox, for gramophone finish**
- **Quick set adjustable clamping jaws, minimising set up time**

The MM860i machine is supplied complete with toolkit including tools and inserts, air filter lubricator and hose connection, all required mounting base and extensions, storage / shipping box, CE certificate, packing list and manual.

Technical Details

Minimum Facing Diameter	153mm	6"
Maximum Facing Diameter	864mm	34"
Minimum Clamping Diameter	145mm	5.7"
Maximum Clamping Diameter	813mm	32"
Minimum Swing Diameter	670mm	26.4"
Tool Post Travel	100mm	4"
R.P.M	Min: 0	Max: 28
Drive – Pneumatic @ 90 P.S.I (6 bar)	1.56Kw	2.1Hp
Air Consumption / Supply Required	1.798 m ³ /min	67 S.C.F.M

Feed Rates

Facing Feed Rates (3 off In/Out)

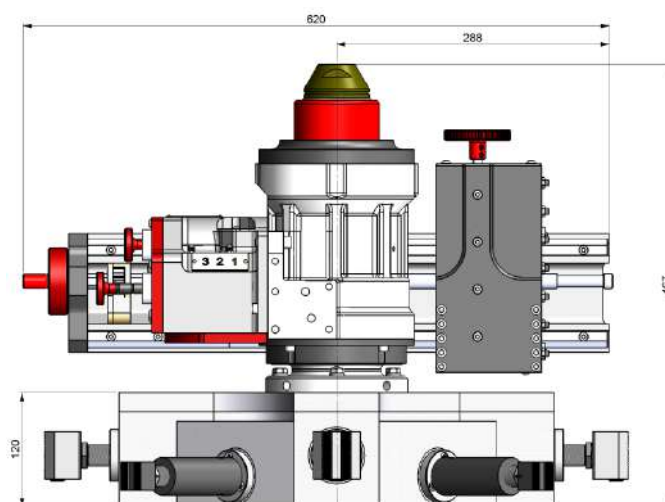
Direction	Gear	mm/rev	inches/rev	grooves per cm	grooves per inch
Out	1	0.165	0.006	60	154
	2	0.258	0.010	38	98
	3	0.628	0.025	15	40
In	1	0.139	0.005	72	183
	2	0.217	0.009	46	117
	3	0.528	0.021	18	48

Weights

Machine Weight	125kg	276lbs
Shipping Weight	200kg	440lbs

Shipping Dimensions

Length		Width		Height	
mm	inches	mm	inches	mm	inches
850	33	600	23.6	750	30



Optional Accessories



MM1000i-SK
2 years Recommended
Spares Kit



PP1
11 KW 3 phase power pack -
56 L.P.M up to 100 BAR



RBC0130
Surface Comparator – Multi
Discipline



RBC0120
Surface Comparator



RTJM1000
RTJ Measuring Kit



MM1000i-10
Hydraulic Orbital Milling Kit



MM1000i-7
Heat Exchanger Mounting
Plate Kit



MM1000i-22
Heat Exchanger Back Facing
Kit

MM1000i-14
Hydraulic Drive Conversion
Kit

MM860i-7
Compact Flange Machining
Kit

12 – 157" (0 – 4000mm)

A unique design and concept in flange facing - with the machine having the capability to mount internally and externally.



- **Internal and external mounting**
- **Three continuous groove facing / boring feeds**
- **Quick set base, minimising set up time**
- **Orbital milling (optional)**

The MM1080ie machine is supplied complete with drive ring, drive motor and gearbox, facing feed / direction gearbox and reduction, facing arm and 360° swivel power feed tool post, internal / external separate mounting base plates, jaw blocks and 8 off clamping jaws - 4 of which have adjustable height setting, toolkit including cutting tools and tool post extensions, air filter lubricator and hose connection (when required), all required bolts and storage / shipping box, CE certificate, packing list and manual.

Technical Details

Min / Max Clamping Diameter (External)	305 – 1067mm	12 – 42"
Min / Max Turning Diameter (External)	500 – 1067mm	19 – 42"
Min / Max Clamping Diameter (Internal)	1400 – 2800mm	55 – 110"
Min / Max Turning Diameter (Internal)	1400 – 4000mm	55 – 157"
Drive - Hydraulic	5.0Hp	3.7Kw
Drive - Pneumatic	4.0Hp	3.0Kw
R.P.M (standard motors)	Min: 0	Max: 12
Tool Post Down Feed	100mm	4"
Hydraulic Supply @ 1050 P.S.I (70 bar)	50 L/min	13 Gal/min
Air Consumption / Supply Required	2.7 m ³ /min	98 S.C.F.M

Feed Rates

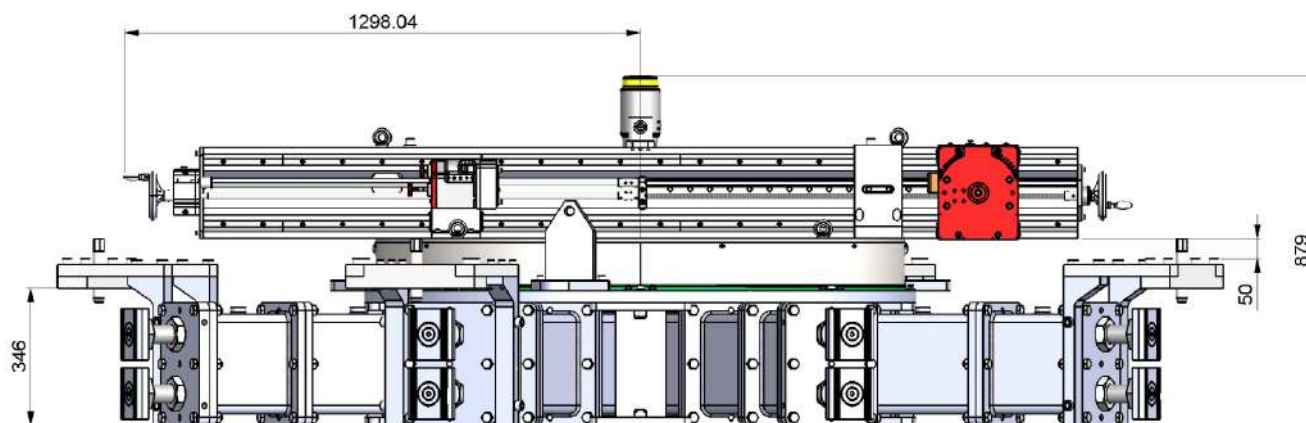
Facing Feed Rates (In/Out per rev)	0.20 – 0.32 – 0.80mm	0.008 – 0.012 – 0.032"
Boring Feed Rates (Up/Down per rev)	0.05 – 0.10 – 0.20mm	0.002 – 0.004 – 0.008"

Weights

Machine Shipping Weight (Box 1)	1050kg	2308lbs
Independent External Base Shipping Weight (Box 2)	700kg	1532lbs
Independent Internal Base Shipping Weight (Box 3)	1115kg	2458lbs
Machine Arm Shipping Weight (Box 4)	670kg	1479lbs

Shipping Dimensions

	Length		Width		Height	
	mm	inches	mm	inches	mm	inches
Box 1	2060	81	1650	65	560	22
Box 2	1900	75	1900	75	560	22
Box 3	2050	81	1650	70	560	22
Box 4	3860	152	660	26	560	22



Optional Accessories



MM2000i-SK
2 Years Recommended
Spares Kit



MM1080ie-19
Heat Exchanger Mounting
Plate Kit



PP2
11 KW 3 Phase Power Pack -
60 L.P.M up to 90 BAR



MM2000i-26
Heat Exchanger Back Facing
Kit



MM1080i-9
Hydraulic Orbital Milling Kit



RBC0130
Surface Comparator – Multi
Discipline



RBC0120
Surface Comparator

OM4300-3
Orbital Milling Arm 4.5m

MM1080ie-21
Facing Arm Extension Kit 4m



Rev1.doc0319

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