

SPEED FACER™ ODF 30 - 120

MOUNTING RANGE: 9.2 - 120.5 inches (487.6 - 3060.7 mm)

01 | 2019
ODF30-120

POWER. SPEED. EASE OF USE.

The OD Mount SPEED FACERS deliver the power and speed needed to get the job done efficiently and cost-effectively.



POWERFUL PRECISE MACHINING PERFORMANCE

Up to 3 hp pneumatic motor provides more power and speed resulting in higher metal removal rates to get the job done fast.

Optimized drive reduction provides the speed range required to use carbide or HSS tooling, for added flexibility and performance.

Infinitely variable feed rates from 0.001-0.032 inch/rev (0.025 - 0.813 mm/rev) allows operational flexibility for higher metal removal and variable surface finish requirements.

Multiple feed trippers to actuate the adjustable feed unit. This allows aggressive feed rates for maximum metal removal as needed.

VERSATILITY AND EASE OF USE

Select from 10 models sized to machine flanges up to 30.5, 40.5, 50.5, 60.5, 70.5, 80.5, 90.5, 100.5, 110.5, or 120.5 inches (774.7, 1028.7, 1282.7, 1536.7, 1790.7,

2044.7, 2298.7, 2552.7, 2806.7, or 3060.7 mm) in diameter.

Tool head and tool bit rotate 360° independently to any angle allowing optimal tool bit positioning and flexibility to create a variety of cuts including chamfers, o-ring grooves, square shoulders, and other angled surfaces.

Back-facing attachment option provides even more flexibility in machining operations where there are bridge obstructions or when machining flanges on the back side of pipe flange.

Removable feed trippers allows for multiple mounting positions maximizing ability to avoid obstructions.

Setup fingers and leveling feet allows for quick and easy setup and alignment of the machine reducing crane time.

Reversible pneumatic motor can be installed from either the top or bottom of the machine depending on obstructions or operating mode.

Custom-built crate allows for expanded shipping options and reduces exposure to inclement weather and damage on-site or in transit.

Cutting tools available upon request eliminates outsourcing. Tool holder can accept up to 0.75 inch (19.1 mm) tooling.

SAFETY

Auto-feed system keeps operators hands safe from moving parts and keeps the job running smoothly.

Bearing guard keeps chips and debris out of the bearing and belt drive system protecting the operator from exposed pinch and entanglement hazards.

Low-pressure safety interlock system prevents unintended re-starts after loss of supplied air pressure.

E-stop for quick stops & controlled re-starts.

CE Certified

SMALL SPEED FACERS (MOUNTING RANGE: 19.2 TO 80.5)

	ODF30	ODF40	ODF50	ODF60	ODF70	ODF80
Machine Performance Ranges						
Mounting range	19.2 - 30.5 in. (488 - 775 mm)	29.2 - 40.5 in. (742 - 1029 mm)	39.2 - 50.5 in. (996 - 1283 mm)	49.2 - 60.5 in. (1250 - 1537 mm)	59.2 - 70.5 in. (1511 - 1791 mm)	69.2 - 80.5 in (1757 - 2044 mm)
Mounting range w/feet extension	9.2 - 30.5 in. (234 - 775 mm)	19.2 - 40.5 in. (488 - 1029 mm)	29.2 - 50.5 in. (742 - 1283 mm)	39.2 - 60.5 in. (996 - 1537 mm)	49.2 - 70.5 in. (1250 - 1791 mm)	59.2 - 80.5 in (1503 - 2044 mm)
Facing diameter range	0 - 30.5 in. (0 - 775 mm)	0 - 40.5 in. (0 - 1029 mm)	0 - 50.5 in. (0 - 1283mm)	0 - 60.5 in. (0 - 1537 mm)	0 - 70.5 in. (0 - 1791 mm)	0 - 80.5 in (0 - 2044 mm)
Radial tool slide travel	14 in. (356 mm)					
Axial tool head travel	6 in. (152 mm)					
Feed rate (Adjustable)	0.001 - 0.032 inch/rev (0.025 - 0.813 mm/rev)					
Rotational Drive System						
Drive type	Pneumatic or Hydraulic - Belt Drive					
Turning arm speed range at max power	0 - 34 RPM	0 - 14.5 RPM	0 - 12 RPM	0 - 10 RPM	0 - 9 RPM	0 - 8 RPM
Power input requirements	1.35 hp pneumatic motor requires 44 S CFM at 90 psi (1.25 cu.m./min at 6 bar)					
Weight						
Machine	1079 lbs (490 kg)	1330 lbs (603 kg)	1690 lbs (767 kg)	1930 lbs (875 kg)	2160 lbs (980 kg)	2820 lbs (1280 kg)
Wooden crate	377 lbs (171 kg)	430 lbs (195 kg)	490 lbs (222 kg)	550 lbs (249 kg)	860 lbs (390 kg)	1100 lbs (499 kg)*
Total shipping weight	1456 lbs (662 kg)	1760 lbs (798 kg)	2180 lbs (989 kg)	2480 lbs (1125 kg)	3020 lbs (1370 kg)	3920 lbs (1780 kg)

* Incline shipping frame

LARGE SPEED FACERS (MOUNTING RANGE: 79.2 TO 120.5)

	ODF90	ODF100	ODF110	ODF120
Machine Performance Ranges				
Mounting range	79.2 - 90.5 in (2011 - 2298 mm)	89.2 - 100.5 in (2265 - 2552 mm)	99.2 - 110.5 in (2519 - 2806 mm)	109.2 - 120.5 in (2773 - 3060 mm)
Mounting range w/feet extension	69.2 - 90.5 in (1757 - 2298 mm)	79.2 - 100.5 in (2011 - 2552 mm)	89.2 - 110.5 in (2265 - 2806 mm)	99.2 - 120.5 in (2519 - 3060 mm)
Facing diameter range	0 - 90.5 in (0 - 2298 mm)	0 - 100.5 in (0 - 2552 mm)	0 - 110.5 in (0 - 2806 mm)	0 - 120.5 in (0 - 3060 mm)
Radial tool slide travel	14 in. (356 mm)			
Axial tool head travel	6 in. (152 mm)			
Feed rate (Adjustable)	0.001 - 0.032 inch/rev (0.025 - 0.813 mm/rev)			
Rotational Drive System				
Drive type	Pneumatic or Hydraulic - Belt Drive			
Turning arm speed range at max power	0 - 7.5 RPM	0 - 6.5 RPM	0 - 5.5 RPM	0 - 5 RPM
Power input requirements	3 hp pneumatic motor requires 95 SCFM at 90 psi (2.69 cu.m./min at 6 bar)			
Weight				
Machine	3140 lbs (1433 kg)	3460 lbs (1569 kg)	3760 lbs (1707 kg)	4040 lbs (1835 kg)
Incline shipping frame	1140 lbs (517 kg)	1260 lbs (572 kg)	1360 lbs (617 kg)	1460 lbs (662 kg)
Total shipping weight	4280 lbs (1940 kg)	4720 lbs (2140 kg)	5120 lbs (2320 kg)	5500 lbs (2500 kg)

All dimensions should be considered reference. Contact your H&S TOOL Representative for precision dimensions. Specifications are subject to change without notice. Actual results for test data may vary depending on setup, machining conditions and machine maintenance. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

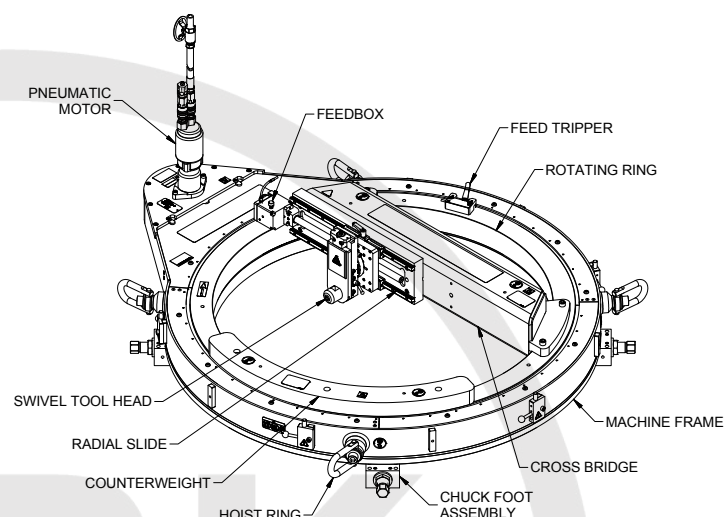
TOOL CONFIGURATIONS



To order your **SPEED FACER™**, simply select the size of the machine.
Everything you need comes standard!

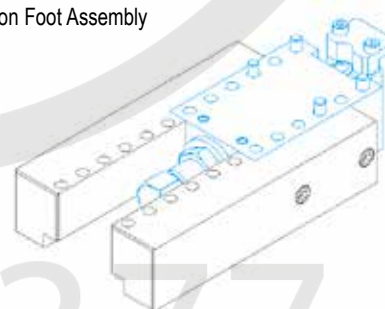
SPEED FACER™ - Includes complete machine assembly with mounting feet, wooden shipping crate (model ODF30 - ODF70) or incline shipping frame (model ODF80 - ODF120), low-pressure safety interlock system, 15 ft (4.6m) air hose, tool kit with cutting tools and operating manual.

Part Number	Model	Facing Diameter Range Up To
88930	ODF30	30.5 in (774.7 mm)
86870	ODF40	40.5 in (1028.7 mm)
86980	ODF50	50.5 in (1282.7 mm)
86990	ODF60	60.5 in (1536.7 mm)
87000	ODF70	70.5 in (1790.7 mm)
94770	ODF80	80.5 in (2044.7 mm)
94780	ODF90	90.5 in (2298.7 mm)
94790	ODF100	100.5 in (2552.7 mm)
93050	ODF110	110.5 in (2806.7 mm)
94850	ODF120	120.5 in (3060.7 mm)



Backfacing Attachment

Extension Foot Assembly



SPEED FACER™ ACCESSORIES

- 87310 **Backfacing attachment** - reuses tool head and slide from machine.
- 87164 **Extension chuck foot assembly** - This is a single extension assembly for a chuck foot. Each extension extends the chuck foot 5 inches (127 mm) for a total of 10 inches (254 mm) in diameter. Four (4) extensions are required for the ODF30 and ODF40, eight (8) extensions are required for the ODF50, ODF60, ODF70 and ODF80, and twelve (12) extensions are required for the ODF90, ODF100, ODF110, and ODF120.
- 89201 **Spacer chuck foot assembly** - includes two 2 in (50.8 mm) spacers and two lengths of bolts for each foot..

H&S APPLICATIONS

Industries

Oil & Gas
Power Generation
Shipbuilding
On-site Maintenance & Repair
Industrial Manufacturing

Typical Applications:

- Pressure vessel flange facing
- Heat Exchanger flange facing
- High pressure flange machining & repair
- Machining back side of tube sheet
- Coupling repair

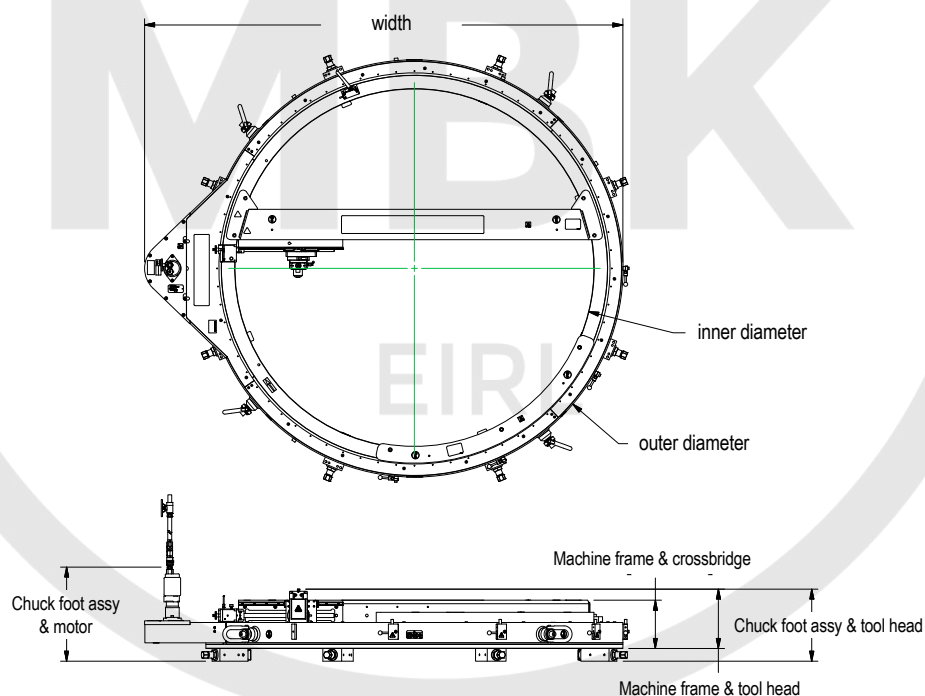
- Flange gasket surface repair
- Crane pedestal production and repair

TEST DATA & DIMENSIONS

In-House Testing Performance Results

	ODF30		ODF40		ODF50		ODF60		ODF70	
	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
Depth of cut	0.100 in (2.5 mm)	.008 in (.203 mm)	0.100 in (2.5 mm)	0.010 in (0.254 mm)	0.090 in (2.3 mm)	0.005 in (0.127 mm)	0.075 in (1.9 mm)	0.010 in (0.254 mm)	0.075 in (1.9 mm)	0.010 in (0.254 mm)
RPM	34	34	14.5	14.5	12	12	10	10	9	9
Feed	0.008 in/rev (0.203 mm/rev)	0.032 in/rev (0.813 mm/rev)	0.008 in/rev (0.203 mm/rev)	0.032 in/rev (0.813 mm/rev)	0.008 in/rev. (0.203 mm/rev)	0.032 in/rev. (0.813 mm/rev)	0.008 in/rev. (0.203 mm/rev)	0.032 in/rev (0.813 mm/rev)	0.008 in/rev. (0.203 mm/rev)	0.032 in/rev (0.813 mm/rev)
Dia. of cut	21-25 in (533 - 635 mm)	18-21 in (457 - 533 mm)	24 - 27.5 in (610 - 699 mm)		36.25 40.5 in (921 - 1029 mm)		47.25 - 50.7 in (1200 - 1288 mm)		59.25 - 63 in (1505 - 1600 mm)	
Tool type	Insertable carbide									
Finish	Ra 63	Ra 250	N/A	250 Ra	N/A	250 Ra	N/A	250 Ra	N/A	250 Ra

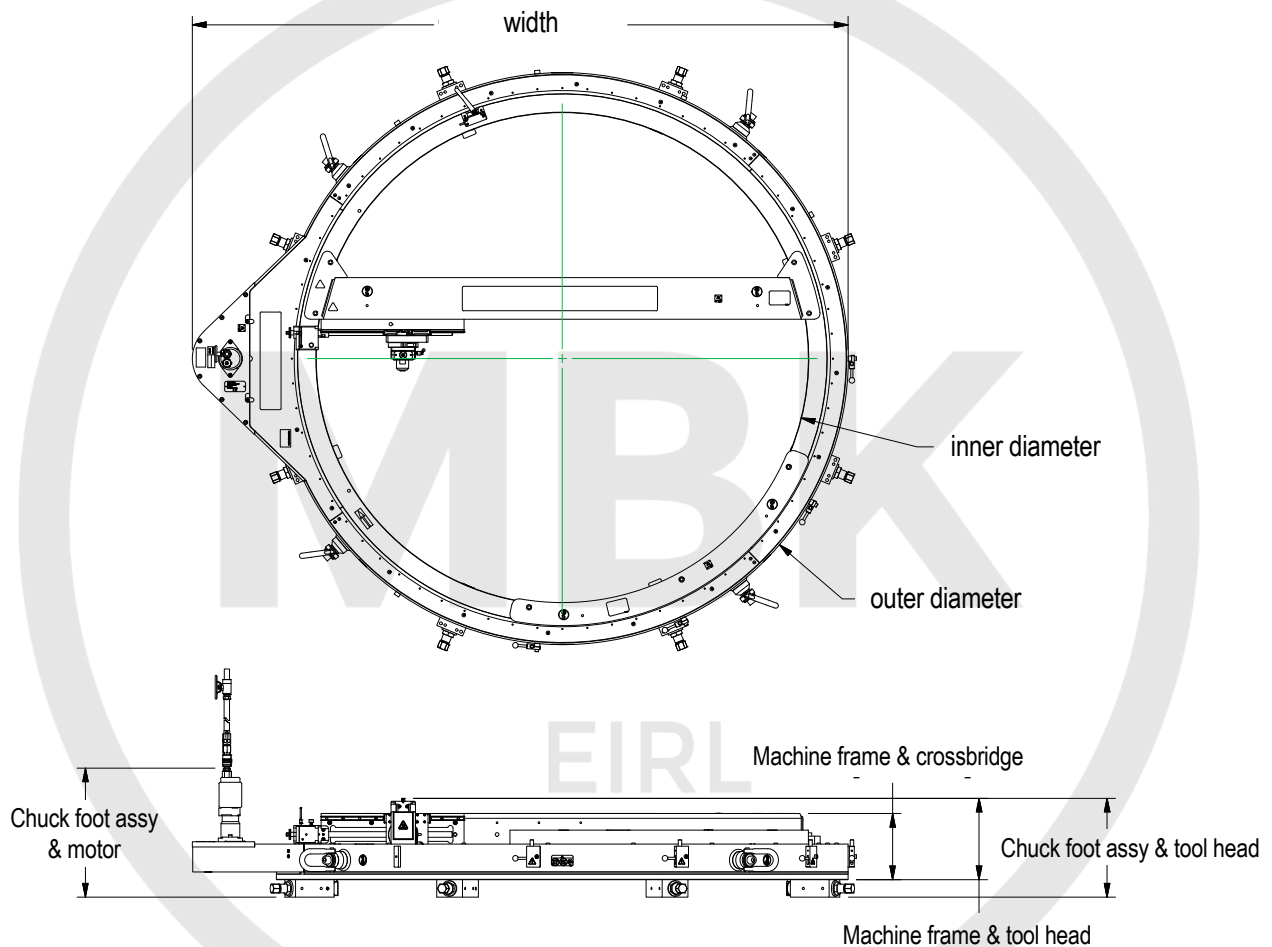
SPEED FACER™ DIMENSIONS (MOUNTING RANGE: 19.2 TO 70.5)



	ODF30	ODF40	ODF50	ODF60	ODF70
Machine dimensions					
Machine width	54.1 in. (1373.1 mm)	64.1 in. (1627.1 mm)	74.1 in. (1881.1 mm)	84.1 in. (2135.1 mm)	94.1 in. (2389.1 mm)
Machine inner diameter	30.6 in. (777.2 mm)	40.6 in. (1031.2 mm)	50.6 in. (1285.2 mm)	60.6 in. (1539.2 mm)	70.6 in. (1793.2 mm)
Machine outer diameter	42.0 in. (1066.8 mm)	82.0 in. (1320.8 mm)	62.0 in. (1574.8 mm)	72.0 in. (1828.8 mm)	82.0 in. (2082.8 mm)
<i>Height between:</i>					
Chuck foot assy & motor	18.3 in. (464.8 mm)		18.5 in. (470.5 mm)		
Machine frame & crossbridge	9.3 in. (235.6 mm)		9.5 in. (241.3 mm)		
Machine frame & tool head	13.5 in. (341.9 mm)		11.7 in. (296.8 mm)		
Chuck foot assy & tool head	16 in. (405.4 mm)		14.2 in. (360.3 mm)		
Shipping dimensions					
Wooden crate W x D x H	49.5 x 62.5 x 22 in. (1257 x 1588 x 559 mm)	59 x 71 x 21.25 in. (1499 x 1803 x 540 mm)	74 x 74 x 21.25 in. (1880 x 1880 x 540 mm)	84 x 84 x 21.25 in. (2134 x 2134 x 540 mm)	92 x 92 x 21.25 in. (2337 x 2337 x 540 mm)

DIMENSIONS

SPEED FACER™ DIMENSIONS (MOUNTING RANGE: 69.2 TO 120.5)



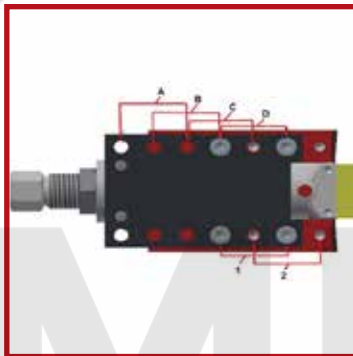
	ODF80	ODF90	ODF100	ODF110	ODF120
Machine dimensions					
Machine width	106.1 in. (2695 mm)	116.1 in. (2949 mm)	126.1 in. (3203 mm)	136.1 in. (3457 mm)	146.1 in. (3711mm)
Machine inner diameter	80.6 in. (2047 mm)	90.6 in. (2301 mm)	100.6 in. (2555 mm)	110.6 in. (2809 mm)	120.6 in. (3063 mm)
Machine outer diameter	94.0 in. (2388 mm)	104.0 in. (2642 mm)	114.0 in. (2896 mm)	124.0 in. (3150 mm)	134.0 in. (3404 mm)
<i>Height between:</i>					
Chuck foot assy & motor	18.3 in. (464.8 mm)		18.5 in. (470.5 mm)		
Machine frame & crossbridge	9.3 in. (235.6 mm)		9.5 in. (241.3 mm)		
Machine frame & tool head	13.5 in. (341.9 mm)		11.7 in. (296.8 mm)		
Chuck foot assy & tool head	16 in. (405.4 mm)		14.2 in. (360.3 mm)		
Shipping dimensions					
Incline shipping frame W x D x H	108 x 67.6 x 73.9 in. (2743 x 1717 x 1877 mm)	118 x 74.5 x 81 in. (2997 x 1892 x 2058 mm)	128 x 81.5 x 88.2 in. (3251 x 2070 x 2240 mm)	138 x 88.4 x 95.3 in. (3505 x 2245 x 2420 mm)	148 x 95.3 x 102.4 in. (3759 x 2420 x 2601 mm)

Crate to cut in 15 minutes or less*

1

Determine the placement of the mounting feet.

Use the chart in the manual to determine the correct position of the feet for the workpiece size.



4

Center and level the machine on the workpiece.

The jacking foot screws will center the machine and the leveling jaw adjustment screws will level it.



2

Set the jaws of the mounting feet.

Adjust the jaws of all feet to 1/8" (3mm) larger than mounting OD.



5

Position the cutting tool.

Insert the cutting tool and move the tool holder to the starting position.



3

Mount the SpeedFacer.

Place the setup fingers against the mounting surface. Tighten the jaws evenly around the diameter. Tighten the jam nuts on all the jaws.



*Tested in a controlled environment

CLIMAX has been teaching the fundamentals and finer points of portable machine tool operation for more than 50 years.

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Training is available at the following seven Global Training Centers:

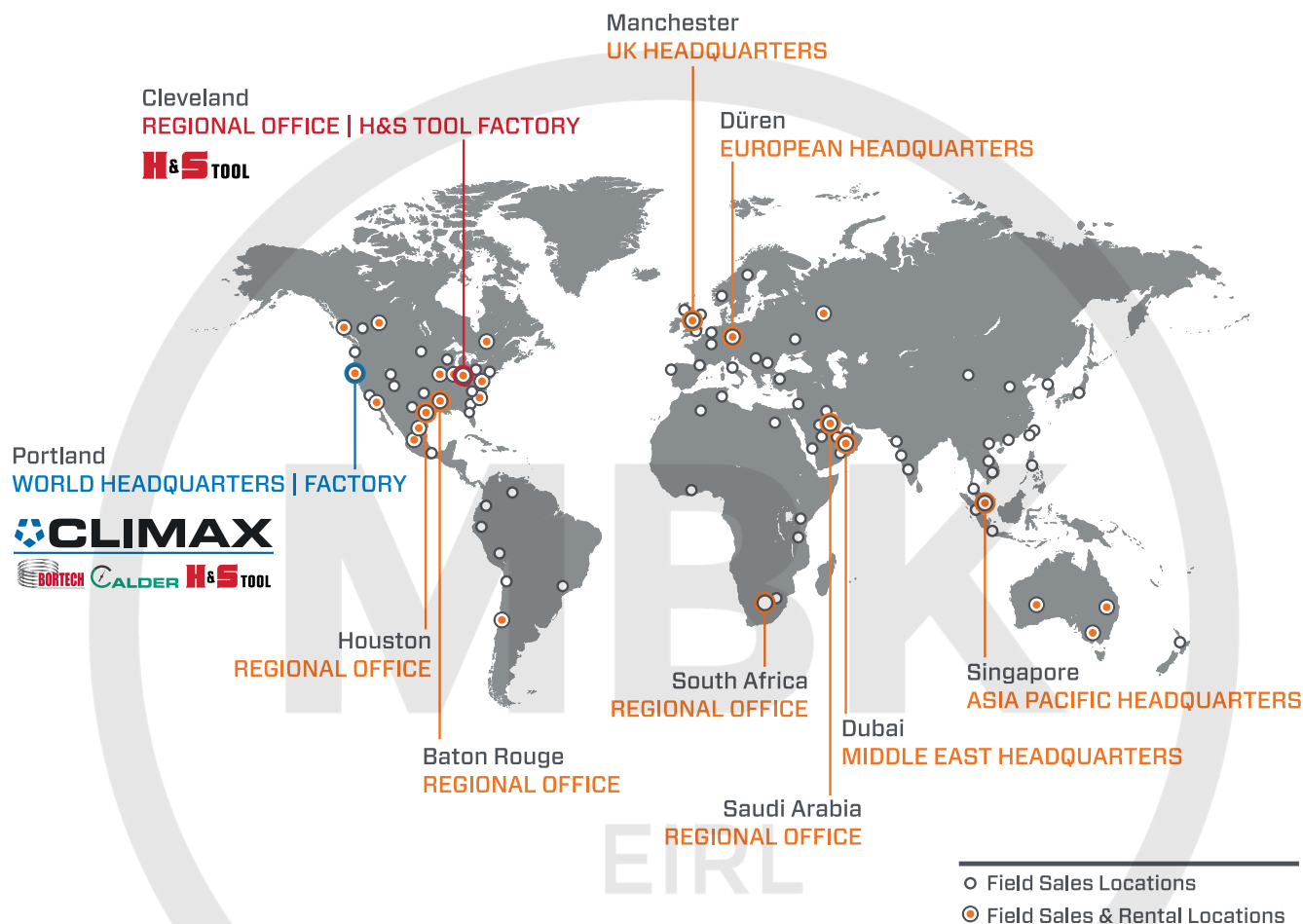
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