BFW

OMEGA SERIES

OMEGA

True to its name, **OMEGA** represents the family of high speed machining centers , which are an ultimate combination of productivity & precision. They are specially crafted to meet the dynamically rising global market demands across various industry segments from Electronics to Automotive to Aerospace to Defence.

Description	OMEGA 3060	OMEGA 3070	OMEGA 3080	OMEGA 30100	OMEGA 4080	OMEGA 40100	OMEGA DUO 30	OMEGA DUO 40L	OMEGA PENTA 30S	OMEGA PENTA 30L	OMEGA PENTA 40S	OMEGA PENTA 40L
Table												
Table Size (mm x mm)	650 x 400	800 x 420	850 x 560	1000 x 500	850 x 560	1000 x 500	900 x 420	1200 x 600	Dia 260	Dia 400	Dia 260	Dia 400
Max Load (kg)	300	300	350	500	350	500	300	400	60	100	60	100
Axis												
X Axis (mm)	600	700	800	1000	800	1000	600	800	500	650	500	650
Y Axis (mm)	400	450	500	600	500	600	450	600	560	600	560	600
Z Axis (mm)	350	350	420	500	420	500	330	600	380	380	500	400
Rapid Traverse (m/min) (X/Y/Z)	54/54/54	54/54/54	48/48/48	48/48/48	48/48/48	48/48/48	48/48/48	36/36/36	54/54/54	48/48/48	54/54/54	48/48/48

Spindle

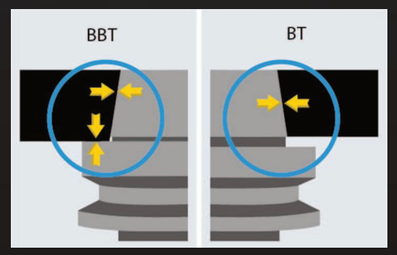
Inline Spindle

Inline Spindles ensures maximum efficiency of transmission of power and speed from Motor to spindle shaft.

On Omega we can offer spindle speeds of upto 24,000 RPM, also these spindles are versatile and agile, and designed to not just complete milling operations but also HIGH speed drilling & tapping

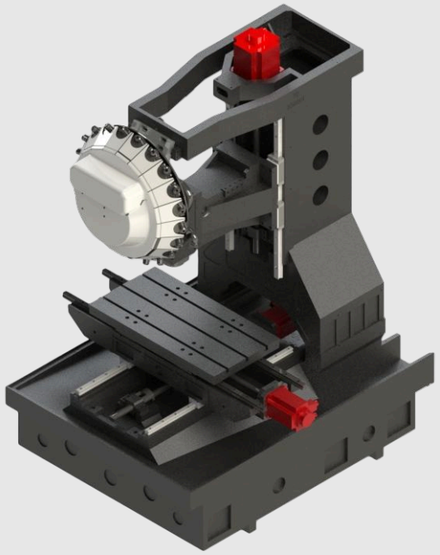
Features: Low inertia coupling, Cartridge type Spindle, The spindle is supported on four precision angular contact bearings, Tool clamp though Disc Spring Tool de-clamping through Cam & Lever

The BBT Dual Contact Spindle securely connects the taper and face of the tool holder to the spindle, ensuring stability during high-speed cutting. This design enhances machining precision



OMEGA

Description	3060	3070	3080	30100	4080	40100
Traverse & Table						
X Axis (mm)	600	700	800	1000	800	1000
Y Axis (mm)	400	450	500	600	500	600
Z Axis (mm)	350	350	420	500	420	500
Spindle Face to Table top min – max	150/50	300/650	300/720	300/800	300/720	300/800
Table Size (mm xmm)	650 x 400	800 x 420	850 x 560	1000 x 500	850 x 560	1000 x 500
Max Load (kg)	300	300	350	500	350	500



Product Description

OMEGA, an equipment with a robust, thermally stable structure, along with high rapid rates upto 54/54/54 m/min for X/Y/Z Axis & directly coupled spindles which can reach rotation speeds of 24,000 revolutions per minute.

Configuration: Machine with fixed column and movable table, mounted over a cross slide. Generally equipped with 3 numerically controlled axis (X,Y & Z) and a Spindle. The table mounted on a cross slide via the base, moves left, right, forward & reverse, these movements constitute the X & Y Axis. Z Axis (Spindle) moves up and down along the guides on the column.

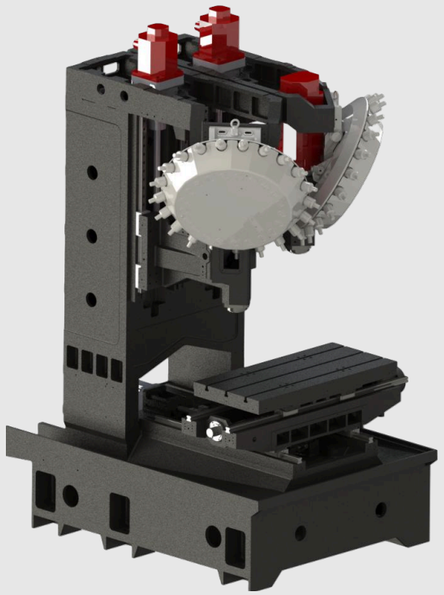
Many more features make the vertical machining centre a flexible one, ensuring the precise demands of your component, yet not compromising on the speed so as to boost your productivity.

Machine Parameters

Description	3060	3070	3080	30100	4080	40100
Spindle						
Taper (opt)	BBT 30				BBT 40 (HSK A63)	BBT 40 (HSK A63)
Spindle Power Cont (kW) /int(kW)	3.7/5.5/7.5 (5.5/7.5)				7.5/11/15	7.5/11/15
Torque (Nm)	23.5/35.5/44 (7.2/35.5)				44/70/95	44/70/95
Max Speed (RPM)	12,000 (24,000)				12000	12000
Axis						
Rapid (X/Y/Z)m/min	54/54/54	54/54/54	48/48/48	48/48/48	48/48/48	48/48/48
Cutting Feed Rate mm/min	20000	20000	20000	20000	20000	20000
Position Accuracy (mm)	0.008	0.008	0.008	0.008	0.008	0.008
Repeatibility(mm)	0.006	0.006	0.006	0.006	0.006	0.006
Tool Magzine						
Capacity (Nos.)	21 Direct	21 Direct	21 Direct	21 Direct	24 Twin Arm	24 Twin Arm
System	Pick up	Pick up	Pick up	Pick up		
Max tool Dia (mm)	80	80	80	80	125	125
Max tool Length (mm)	200	200	200	200	250	250
Max tool Weight (kg)	3	3	3	3	6	6
Chip to Chip time (s)	1.9	1.9	2.1	2.2	3.2	3.6
Accessories						
Coolant gun and air gun	Yes	Yes	Yes	Yes	Yes	Yes
3 Tier lamp	Yes	Yes	Yes	Yes	Yes	Yes
Lamella cover for Z axis	Yes	Yes	Yes	Yes	Yes	Yes
Auto front door	Option	Option	Option	Option	Option	Option
4th axis readiness with drive+motor	Option	Option	Option	Option	Option	Option
Coolant through Spindle (Optional)	NA	16 bar	16 bar	16 bar	16/40 bar	16/40 bar
CNC System						
CNC System	BFW-Syntec (Mitsubishi M80 Fanuc 0iMF+ Siemens 828D)					

OMEGA DUO

Description	30	40
Traverse & Table		
X Axis (mm)	600	800
Y Axis (mm)	450	600
Z Axis (mm)	330	600
Centre Distance b/w Spindles	400	500
Spindle face to table top - Min./Max.(mm)	150/480 (300/630)	130/730
Table Size(mm x mm)	900 x 420	1200 x 600
Max Load (kg)	300	400



Product Description

Omega Duo, is yet another innovation in high speed VMC's with **TWO** Spindles.

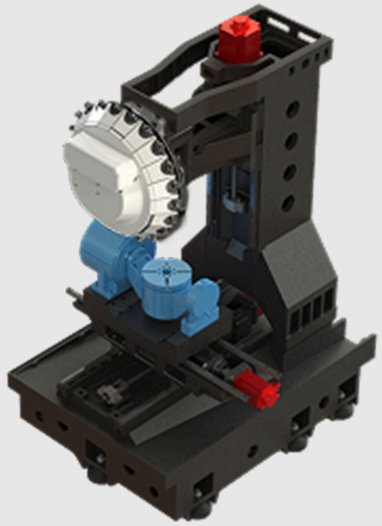
Configuration: Twin Spindle Vertical Machining Center, with **INDEPENDENT** Z Axis, reinforcing the philosophy of boosting productivity , without compromise in Quality & Precision

Machine Parameters

Description	30	40
Spindle		
Taper	BBT 30	BBT 40
Spindle Power (kW) Cont /int	3.7/5.5/7.5	7.5/11/15
Torque (Nm)	23.5/35.5/44	47.7/70/95.5
Maximum Speed (opt)(RPM)	12000 (20,000)	12000
Axis		
X/Y/Z Rapid Traverse (m/min)	48/48/48	36/36/36
X/Y/Z Max cutting feed rate (mm/min)	20,000	20,000
Tool Magzine		
Type	Direct Pickup	Twin Arm
Max Pockets of Tool Magazine	21	24
Max tool Diameter (mm)	80	80/125
Max tool weight (kg)	3	6
Max Tool length (mm)	200	250
Chip to Chip time (Seconds)	2.4	3.6
Accessories		
Coolant gun and air gun	Yes	Yes
3 Tier lamp	Yes	Yes
Lamella cover for Z axis	Yes	Yes
Auto front door	Optional	Optional
4th axis readiness with drive+motor	Optional	Optional
Coolant through Spindle (Optional)	16 Bar	16 Bar
CNC System		
CNC System	BFW - SYNTEC	Mitsubishi- M80
Accuracy		
Positioning (mm)	0.008	0.008
Repeatibility (mm)	0.006	0.006

OMEGA PENTA

Description	30S	30L	40S	40L
Traverse				
X Axis (mm)	500	650	500	650
Y Axis (mm)	560	600	560	600
Z Axis (mm)	380	380	500	400
Spindle face to table top - Min./Max.(mm)	100/480	0/380	40/540	0/400
Height Block	No	No	No	No



Product Description

OMEGA PENTA is an equipment with a robust, thermally stable structure, along with high rapid rates of upto 54 m/min for X/Y/Z Axis & directly coupled spindles which can reach rotation speeds of 24,000 revolutions per minute.

Configuration: OMEGA PENTA is a continuous 5 axis machine equipped with a DDR rotary tilting table mounted on the cross slide via the machine base, this equipment is the best suitable machine for machining of complicated parts mainly used in the Medical, Aerospace & Defense Industries.
OMEGA PENTA , also comes along with a Direct Drive Rotary table, equipped with 4 x 90 Degree Slots, to accommodate all kinds of Work holding mechanisms.

Equipping the Machine with a DDR, makes the machine not only precise but more productive, since these tables can be operated at RPM ranging upto 1500 RPM, it is suitable to perform turn mill operations , hence making it versatile. Whereas a conventional NC rotary table can be operated only upto 60 RPM.

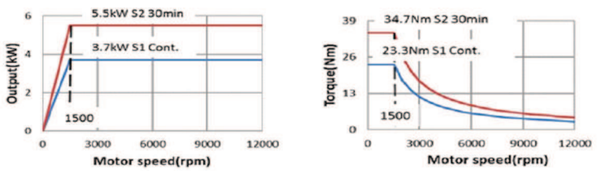
Machine Parameters

Description	30S	30L	40S	40L
Spindle				
Taper	BBT 30	BBT 30	BBT 40	BBT 40
Spindle Power (kW) Cont /int	8.2/12	8.2/12	5.5/7.5/11	5.5/7.5/11
Torque (Nm)	26/38	26/38	35.5/44/60	35.5/44/60
Maximum Speed (opt)(RPM)	20,000	20,000	12000	12000
Table				
Rotary Table Size (C-Axis) mm	Dia. 260	Dia. 400	Dia. 260	Dia. 400
Load carrying capacity (Kg)	60	100	60	100
A-axis speed (RPM)	200	60	200	60
C-axis speed (RPM)	200	200	200	200
A-axis rotation angle Degrees	+/-110	+/-110	+/-110	+/-110
Axis				
X/Y/Z Rapid Traverse (m/min)	54/54/54	48/48/48	54/54/54	48/48/48
X/Y/Z Max cutting feed rate (mm/min)	20,000	20,000	20,000	20,000
Tool Magzine				
Type	Direct Pickup	Direct Pickup	Direct Pickup	Direct Pickup
Max Pockets of Tool Magazine	21	21	24	24
Max tool Diameter (mm)	80	80	80 (125)	80 (125)
Max tool weight (kg)	3	3	6	6
Max Tool length (mm)	200	200	250	250
Chip to Chip time (Seconds)	2.4	2.4	3.5	3.5
Accessories				
Coolant gun and air gun	Yes	Yes	Yes	Yes
3 Tier lamp	Yes	Yes	Yes	Yes
Lamella cover for Z axis	Yes	Yes	Yes	Yes
Auto front door	Option	Option	Option	Option
Coolant through Spindle (Optional)	16 Bar	16 Bar	16 Bar	16 Bar
CNC System				
CNC System	BFW - SYNTEC	BFW - SYNTEC	BFW - SYNTEC	BFW - SYNTEC

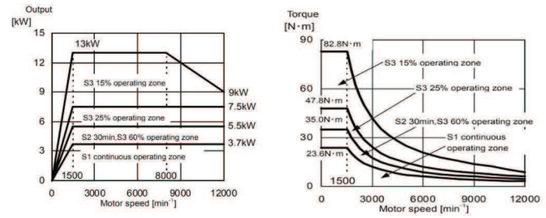
Spindle Characteristics

OMEGA BBT 30 - 12000 RPM

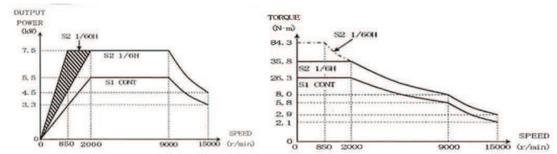
BFW SYNTEC



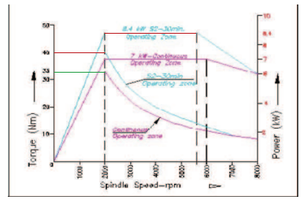
FANUC



MITSUBISHI

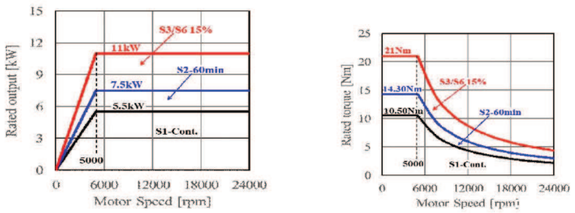


SIEMENS

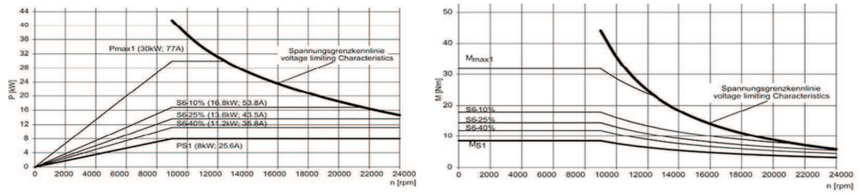


OMEGA 3060 - 24000 RPM

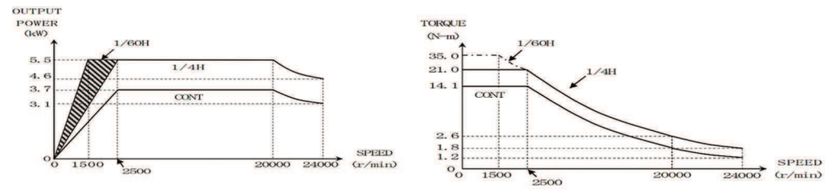
BFW SYNTEC



SIEMENS

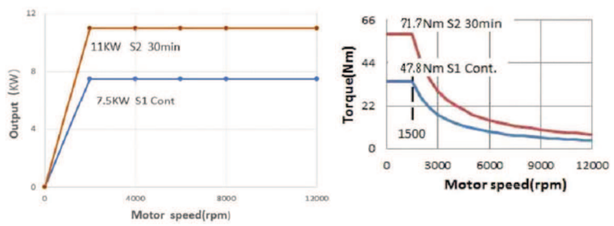


MITSUBISHI

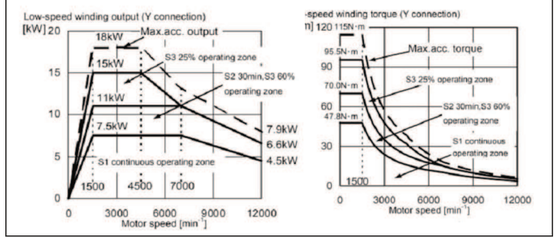


OMEGA 4080/40100

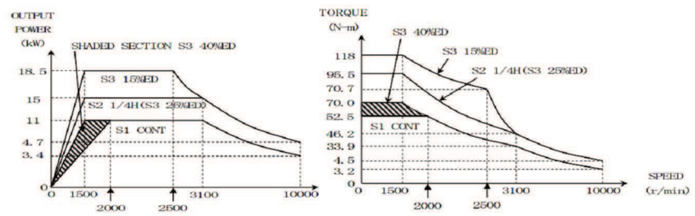
BFW SYNTEC



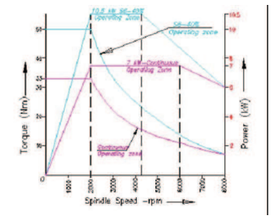
FANUC



MITSUBISHI

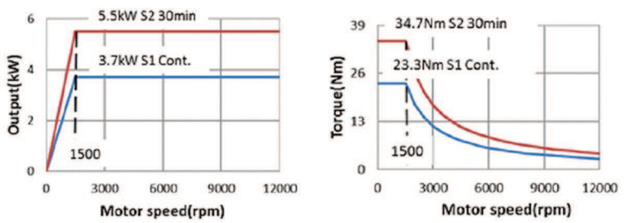


SIEMENS



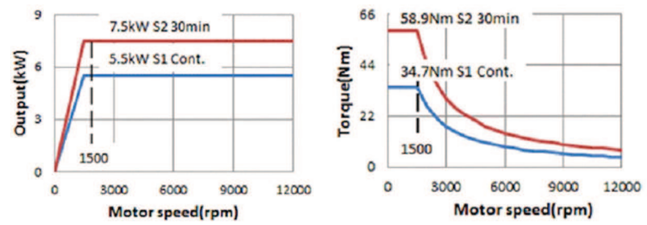
OMEGA DUO 30

BFW SYNTEC



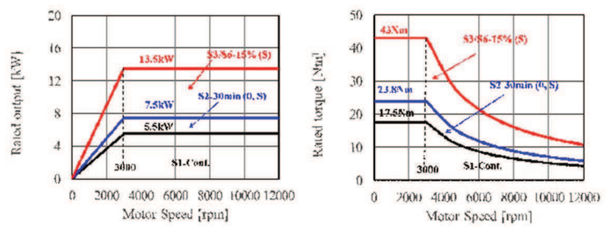
OMEGA DUO 40

BFW SYNTEC



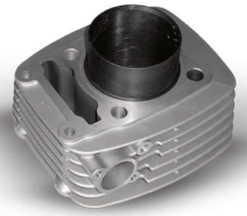
OMEGA PENTA

BFW SYNTEC

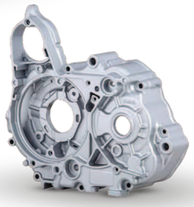


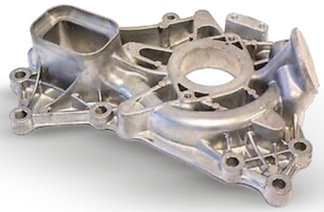
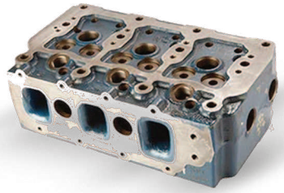
Applications

OMEGA





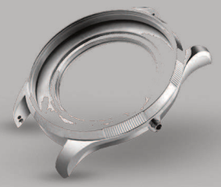
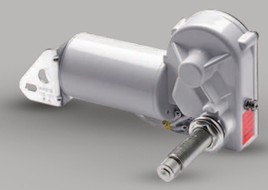




OMEGA DUO



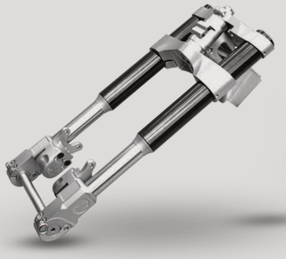


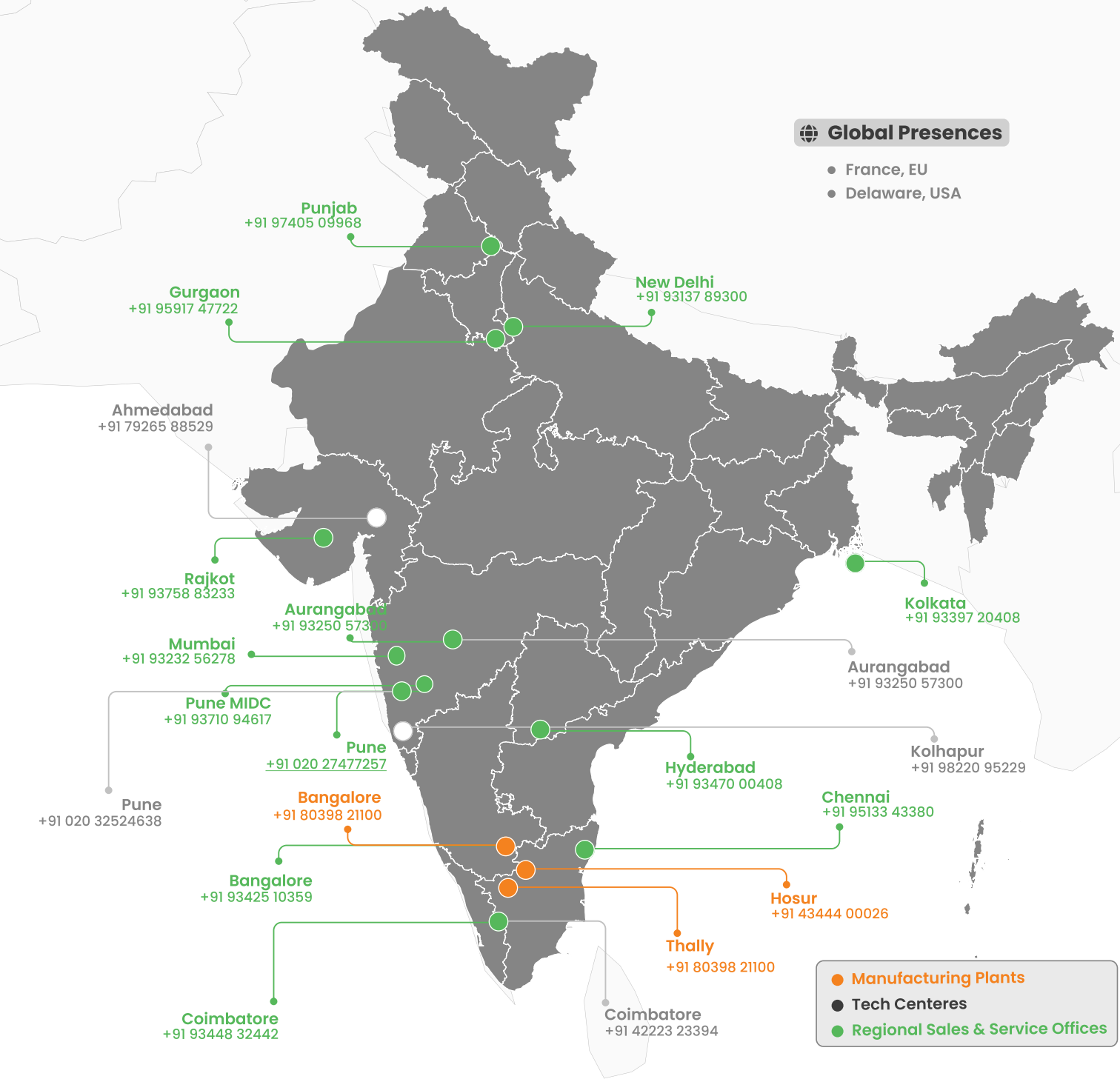


OMEGA PENTA



International Networks

- Bangladesh
- Bahrain
- China
- France
- Germany
- Iran
- Kuwait
- Netherlands
- Oman
- Qatar
- Russia
- Saudi Arabia
- Sri Lanka
- South Africa
- Thailand
- Turkey
- UAE

Contact Details

BFW
Enabling Progress...

+91 93423 36169
bfwmarketing@bfw.co.in
www.bfwindia.com