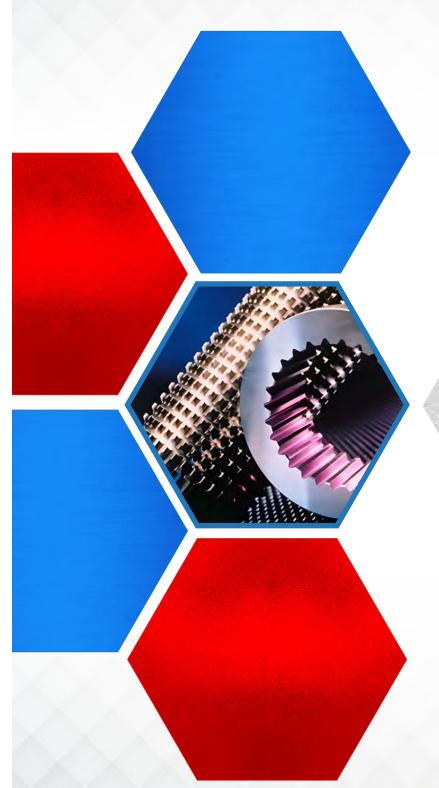
# POWER BROACH



# **BROACHING MACHINES**

RÄUMMASCHINEN

**BROCCIATRICI** 

**MACHINES À BROCHER** 

**Broaching** 

Means POWERBROACH

# POWER BROACH



# **About Us**

Power Broach is a Brand Product of M/s Tool Room Engineers LLP who are leaders in the Manufacturing of Broaching machines and Fixturing solutions.

Power Broach offers Broaching Machines and Customized Broaching solutions to its valued customers with complete Broaching and Fixturing and Inspection Solutions to almost any kind of component having metal cutting operations. Power broach is committed to continuos quality improvement in all our products. Reliability, maintainability and durability is foremost in our thoughts during design and manufacture of broaching machines. Our broching machine lineup is constantly being upgraded to improve machine performance.

At Power Broach, we are committed to design and manufacture machines that are made in India as well as Make in India. Our Company is backed by a Passionate and Innovative Team of Skilled & Experienced professionals, having years of expertise in 3-D Designing & Manufacturing. Our Infrastructure comprises of Design Engineers, Latest CNC Machines, Production Engineers and Quality Assurance Team backed by years of experience. Our QC Team uses state of the Art to manufacture a High Performance and Rigid machine every time which is best in terms of Quality and Price. Apart from that, we have a dedicated After Sales Support Team which provides complete After Sales Support to our esteemed customers, including training, Preventive maintenance and any other technical issue. Our Service team is always ready to resolve customer needs.







# **About Broaching**

Various Internal profiles can be made through broaching operation. Below mentioned are some examples to show the capability of broaching process. Broaching is a low cost and high volume production process. For each type of profile a special broach tool is made as per the manufacturing drawing. Broach tools are usually made from different grades of HSS (High Speed Steel) and some times they are made from carbide material. Broaching operation can be done pratically on all types of materials such as steels, stainless steels, cast iron, aluminium, bronze, nylon and various other materials.



[2]

# Mission | Vision | Values



#### Mission

#### **Help Customers Succeed**

In machine tools, users do not come to buy equipment but to solve problems they encounter.

Power Broach is not only a manufacturer of broaching machines but also a consultant who accompanies customers to ask questions and solve problems. Our success comes from helping our customers succeed.

# Vision Be the Global leader in Broaching Solution

- Accompany customers to solve their problem
- → Refine technology and services→ Solve more complex problems
- Continuously improve technology and services to world-class standards
- → Help customers world wide to solve their broaching problems
- → Become the global leader in broaching



#### Values

## Integrity, Embraching Change, Lifelong Learning, and Mutual Benefit

#### Integrity

Integrity is about consistency in commitment and action, in front of and behind people, and in the past and present

#### **Embracing Change**

Change brings many problems and represents more needs and opportunities to help customers succeed.

#### **Lifelong Learning**

Knowledge expires at the time we learn. Keep learning with a growth mindset help us face change and challenges.

#### Mutual Repofit

Build positive feedback loops among customers, employees, suppliers, the environment, and society.

# **CERTIFICATIONS**

TOOL ROOM ENGINEERS LLP is an ISO 9001:2015 certified company with annual audits and training. Other certificates such as MSME Registration for the company, CE certification, and the patents for the products, are renewed up to date.









# | The content of the

# **HISTORY**

### 2003

Established in 2003, by our director Mr. S.K Bhalla Company's initial product range included precision receiving gauges and fixtures.



### 2005

Company started making hydraulic fixtures for VMC & HMC Machines.

## 2008

Company started making Special purpose machines for OEM customers with advanced automation solutions.

## 2010

Company developed first horizontal broaching machine for in house facility.



#### 2012

Company developed first vertical broaching machine for in house trials and production. Company got SSI Certification



### 2015

Power Broach got ISO 9001:2015 certification & MSME approval.



#### 2018

Company developed surface broaching machine for in house facility.

#### 2019

Company sold and installed more than 100 machines pan india for various OEM, Tier-1 & Tier-2 customers.



## 2021

Company reconstituted to TOOL ROOM ENGINEERS LLP. In the same year company started making higher tonnage machines of capacity 50 tonnes & above.



# 2022

Company developed high precision broaching machine for Aeronautical Industry.

# 2025

Reached Sales No. of 400+ successful commissioned Machines

# **QUALITY MANAGEMENT**

#### **QUALITY ASSURANCE**

Not only us but also suppliers and customers are involved in the quality system. It helps to do the right thing from the beginning and make sure we do it right in every process.

#### **QUALITY CHECK**

In manufacturing, there are inspections in the material, the process, and the prouduct. The unqualified parts and the quality improvement of the suppliers are seriously controlled



# "Trusted Service, Across Every Distance."

Complete online communication solutions. Most of the all pre-sale, in-sale, and after-sale services & Inspection can be done online, regardless of distance and time constraints.





#### IN HOUSE INSPECTION FACILITIES

We have latest state of the art inspection equipments including Coordinate Measuring Machine, Mitutoyo Linear Height Gauge, Rockwell Hardness Tester, Profile Projector and several other instruments etc. We can provide full support for your product inspection requirements.













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Hydraulic Internal Broaching Machine

**VIKAS** 



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Servo Hydraulic Internal Broaching Machine

**VB** SH



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Hydraulic Internal Broaching Machine

VIKAS WIDE BED



Page 21

**Notch Broaching Machine** 

**VB** SE ATOM



Page

Hydraulic Internal Broaching Machine

**ECO** 



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Servo Electric Internal Pull Down Broaching Machine

**VB** SE



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Servo Electric Internal Table-Up Broaching Machine

**VB** TU-SE



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Servo Hydraulic & Electric Broaching Machine for Aeronautical Parts

AERO SH





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Servo Electric Surface Broaching Machine

Page

**SB** SH

Servo Hydraulic Surface Broaching Machine

**SB** SE

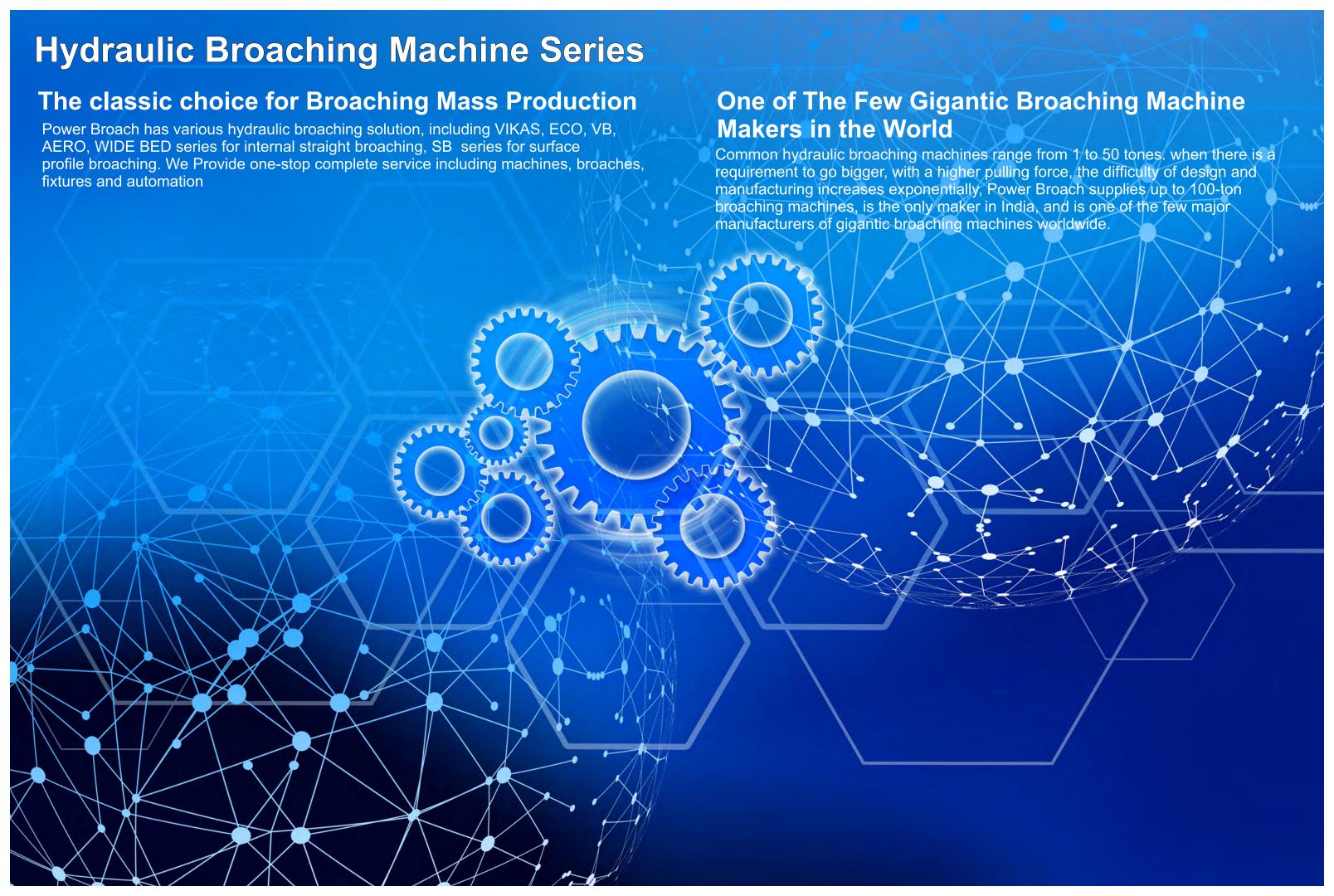


**Broaching** Means POWERBROACH

Page

Servo Hydraulic Horizontal **Broaching Machine** 





Broaching Force: 3 - 5 Ton

Broaching Stroke: 400 - 1200 mm

# Vertical Broaching Machine Vikas Model

- Dual Push Start Button For Operator Safety
- Broach tool auto return
- Power failure recovery (Machine Start from same position where operation stopped)
- Hard fixture bed plate
- Lubrication pump timer based
- Part Counter display
- Proper control panel for easy operation
- Easy tool stroke adjustment
- Deep Chip carrier and easily removal
- Low power consumption
- Compact foot frame with high rigidity
- Two Puller hanger with machine
- Bed flush coolant (optional)
- Magnetic chip conveyor (optional)
- Hydraulic Oil Air Cooler (optional)
- Broach hanger (optional)
- Laser Safety curtains (optional)

# Highlights







#### **PRODUCT SPECIFICATIONS**

Description	Capacity	VIKAS JUNIOR	VIKAS	VIKAS+	VIKAS++
Pulling Force	KN	30	40	50	50
Maximum Stroke/ Tool Length	mm	400 / 600	600 / 800	800 /1000	1000 / 1200
Cutting Speed	m/min	1-4	1-4	1-4	1-4
Return Speed	m/min	6	6	6	6
Bolster Hole Dia	mm	40	60	60	60
Main Motor	Нр	3	5	5	5
Coolant Motor	Lpm	40	40	40	40

# **Application**

- Commonly used for keyway broaching
- Small internal diameter
- Light work
- Batch production
- Considering Light broach tools for operator comfort and safety



Vikas +



Broaching Force: 5 Ton

Broaching Stroke: 800 - 1200 mm





Vikas + (Wide Bed)

Vikas + + (Wide Bed)

# Wide Bed Broaching Machine Vikas Model

# Highlights

- Wide Bed platform for Bigger Jobs
- Dual Push Start Button For Operator Safety
- Broach tool auto return
- Power failure recovery (Machine Start from same position where operation stopped)
- Hard fixture bed plate
- Lubrication pump timer based
- Part Counter display
- Proper control panel for easy operation
- Easily tool stroke adjustment
- Deep Chip carrier and easily removal
- Low power consumption
- Compact foot frame with high rigidity
- Two Puller hanger with machine
- Bed flash through coolant (optional)
- Magnetic chip conveyor (optional)
- Hydraulic Oil Air Cooler (optional) Broach holder (optional)
- Laser Safety curtains (optional)







#### **PRODUCT SPECIFICATIONS**

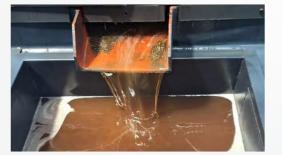
Description		Capacity	VIKAS+ (wide Bed)	VIKAS++(wide Bed)
Pulling Force		KN	50	50
Maximum Stroke/	Tool Length	mm	800/1000	1000/1200
Max. Part Diamete	er	mm	350	500
Cutting Speed		m/min	1 - 4	1 - 4
Return Speed		m/min	6	6
<b>Bolster Hole Dia</b>		mm	40	60
Main Motor		Нр	5	5
Coolant Motor		Lpm	40	40

Note: Machine for parts having diameter more than 500mm available on special order

# Media











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ECO

Broaching Force: 6 - 20 Ton Broaching Stroke: 800 - 2000 mm



# **Hydraulic Internal Broaching Machine**

# **Highlights**

- Automatic Broach Retriever cum Follower
- Dual Push Start Button For Operator Safety
- Power failure recovery (Machine Start from same position where operation stopped)
- Hard fixture bed plate
- Lubrication pump timer based
- Easy tool height adjustment
- Deep Chip carrier easily removal
- Low power consumption
- Compact foot frame with high rigidity
- Two Puller hanger with machine
- Bed flash through coolant (optional)
- Broach auto cleaner (optional)
- magnetic chip conveyor (optional)
- Hydraulic Oil Air Cooler (optional)
- Laser Safety curtains (optional)





# POWER BROACH

#### PRODUCT SPECIFICATIONS

Description	Capacity	COMET	COMET +	STAR	STAR +	GALAXY	GALAXY+	GALAXY++	NOVA	NOVA+
Pulling Force	KN	60	60	100	100	160	160	160	200	200
Maximum Stroke/	mm	800/1000	1000/1200	1200/1400	1400/1600	1300/1600	1400/1800	1600/2000	1400/1800	1600/2000
Cutting Speed	m/min	1-7	1-7	1-6	1-6	1-6	1-6	1-6	1-6	1-6
Return Speed	m/min	8	8	8	8	8	8	8	8	8
Bolster Hole Dia	mm	60	60	80	80	125	125	125	125	125
Main Motor	Нр	7.5	7.5	10	10	20	20	20	25	25
Coolant Motor	Lpm	40	40	63	63	100	100	100	160	160

- \* Bolster Diameter may change as per requirement
- \* Tool stroke/ Tool length may change as per requirement
- ❖ Wide Bed available as per requirement
- PRO: Means Same Model Machine With Full Canopy



2 - Station (optional)



3 - Station (optional)



VB-6T SH



VB-30T SH



H ECO COMET PRO

# Media



These are economical design for general broaching application even through maintaining on accuracy parameter required for broaching application

- commonly used:-
- 1- Gear Industries
- 2- Automotive parts
- 3- Railways Parts
- 4- Tractors Part
- 5- Earth Moving Industries etc.













Broaching Force: 6 - 50 Ton

Broaching Stroke: 800 - 2000 mm





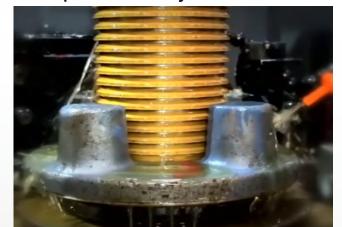


# **Servo Hydraulic Internal Broaching Machine**

# **Highlights**

- Touch Screen Human Machine Interface
- Automatic Broach Retriever cum Follower
- Tool Management Chart (48 memory)
- Tool Load Monitoring
- Intelligent Machine Software PB GEN-5.21(PAGE NO. 32)
- Programmable Coolant Function
- Dual Push Start Button For Operator Safety
- Power failure recovery (Machine Start from same Position where operation stopped)
- Hard fixture bed plate
- Lubrication pump timer based
- Easy tool height adjustment
- Deep Chip carrier easily removal
- Low power consumption
- Compact foot frame with high rigidity
- Two Puller hanger with machine
- Bed flush coolant (optional)
- Broach auto cleaner (optional)
- Magnetic chip conveyor (optional)
- Hydraulic Oil Air Cooler / chiller (optional)
- Digital Height control (optional)
- Laser Safety Curtains (optional)

**Servo Hydraulic Broaching machines apply** the cutting-edge broaching technology for advances precision, longer tool life, and better power efficiency.





#### **PRODUCT SPECIFICATIONS**

Description	Capacity	VB-6T SH	VB-10TsH	VB-16TsH	VB-20TsH	VB-25TsH	VB-30Tsh	VB-40TsH	VB-50Tsh
Pulling Force	KN	60	100	160	200	250	300	400	500
Maximum Stroke/ Tool Length	mm	800/1000	1200/1400	1300/1600	1400/1800	1600/2000	1600/1800	1600/1800	1800/2000
Cutting Speed	m/min	1-7	1-6	1-6	1-6	1-5	1-5	1-5	1-5
Return Speed	m/min	8-12	8-10	8-10	8-10	7-9	7-9	6-8	6-8
<b>Bolster Hole Dia</b>	mm	60	80	125	125	150	200	200	250
Main Motor	Нр	10	15	20	25	30	40	50	60
Coolant Motor	Lpm	40	63	100	100	160	250	250	250

- \* Bolster Diameter may change as per requirement
- \*Tool stroke/ Tool length may change as per requirement
- ❖ Wide Bed available as per requirement

2 - Station

(optional)

PRO : Means Same Model Machine With Full Canopy













VB-30T SH **VB-20 SH** 

**★ SH - SERVO HYDRAULIC** 

# Media

3 - Station

(optional)





#### **ROBOTIC AUTOMATION**

All the machines can be customised for robot interfacing for automatic loading & unloading of components. **ROBOTIC AUTOMATION** 

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www.powerbroach.com

\* SE:- Servo Electric

Broaching Force: 1 - 3 Ton Broaching Stroke: 400 - 800 mm Generally known as:

#### NOTCH BROACHING MACHINE

SERVO ELECTRIC - PULL DOWN

#### **TECHNICAL SPECIFICATIONS**

Model	VB 1T SE ATOM	VB 2T SE ATOM	VB 3T SE ATOM					
Driving Mode	Servo Electric Motorized	Servo Electric Motorized	Servo Electric Motorized					
Cutting Speed(m/min)	6~8	6~8	6~8					
Return Speed(m/min)	8~10	8~10	8~10					
Bolster Diameter (mm)	40 mm	50 mm	80 mm					
Tool stroke (mm)	400 mm	600 mm	800 mm					
Power	1.5 Kw	3 Kw	4 Kw					

Two blade, U and V type, extra blade as spare parts are available



# **Servo Electrical Internal Broaching Machine**

# **Machine Features**

- Robust design, cuts the notches (V or U) very accurately
- Specially designed multi-toothed broach.
- Simple to use,accurate & reliable.
- No efforts, all by servo motorized operation, Just to press a Push button to start.
- Equipped with broach guard for safety.
- Easy removal & assembly of broach & Longer broach Life.
- Ball Screw for uniform cutting action.
- Hardend crome rods with self lubricated GUN metal bushes for smooth motion.
- Digital HMI 4 inches for fine feed.
- Excellent broaching finish & Excellent Repeatability.
- Front door access for easy maintenance.
- Complete servo system for easy control & power saving mode.
- Power failure recovery (Machine Start from same position where operation stopped)





# SERVO ELECTRIC INTERNAL PULL DOWN BROACHING MACHINE

Pulling Capacity : 50 - 250 KN

Broaching Stroke : 800 - 2000 MM









3 - Statio

#### **Machine Features**

- ✓ Servo Motor + Precision Screw Drive → Provides consistent low-vibration broaching, increasing tool life by up to 25%.
- ✓ Energy Efficient → Compared to traditional hydraulic machines, the electrical mechanical design saves up to 50% electricity.
- ✓ User-Friendly Software Screen Makes operation and diagnostics easy.
- ✓ Flexible Settings → Broaching speed and stroke can be adjusted via HMI.
- ✓ Vibration Reduction → Broach retriever holds the broach firmly, reducing vibration during broaching.
- ✓ Safety & Maintenance → CE-certified safety design with easy maintenance
- ✓ Intelligent Machine Software PB GEN-5.21

#### PRODUCT SPECIFICATIONS

ш	<u>Description</u>	<u>Units</u>	VB-5T SE	VB-10T SE	VB-15T SE	VB-20T SE	VB-25T SE
MACHINE	Pulling Force	KN	50	100	150	200	250
	Maximum Stroke	mm	1000	1400	1600	2000	2000
HING	Cutting Speed	m/min. 60 Hz	8	8	8	10	10
BROACHING	Return Speed	m/min. 60 Hz	12	12	12	12	12
	Max. WorkPiece Outer Diameter	mm	150	220	250	250	300
<b>TABLE-UP</b>	Main Motor	KW	5.5	11	15	22	30
¥	Coolant Pressure	LPM	63	100	160	160	250

\*Main Motor Configuration can be single or twin as per Model





# SERVO ELECTRIC INTERNAL TABLE-UP BROACHING MACHINE

# Pulling Capacity: 50 - 250 KN Broaching Stroke: 800 - 2000 MM









3 - Station
(optional)

#### **Machine Features**

- ✓ Servo Motor + Precision Screw Drive → Provides consistent low-vibration broaching, increasing tool life by up to 25%.
- ✓ Energy Efficient → Compared to traditional hydraulic machines, the electrical mechanical design saves up to 50% electricity.
- ✓ User-Friendly Software Screen Makes operation and diagnostics easy.
- ✓ Flexible Settings → Broaching speed and stroke can be adjusted via HMI.
- ✓ Simple Installation → Low working height, no need for digging pits.
- ✓ Vibration Reduction → Broach retriever holds the broach firmly, reducing vibration during broaching.
- ✓ Safety & Maintenance → CE-certified safety design with easy maintenance
- ✓ Intelligent Machine Software PB GEN-5.21

# Media











#### **PRODUCT SPECIFICATIONS**

ш	<u>Description</u>	<u>Units</u>	VB-5T TU	VB-10T TU	VB-15T TU	VB-20T TU SE	VB-25T TU
MACHINE	Pulling Force	KN	50	100	150	200	250
	Maximum Stroke	mm	1000	1400	1600	2000	2000
HING	Cutting Speed	m/min. 60 Hz	8	8	8	10	10
BROACHING	Return Speed	m/min. 60 Hz	12	12	12	12	12
	Max. WorkPiece Outer Diameter	mm	150	220	250	250	300
TABLE-UP	Main Motor	KW	5.5	11	15	22	30
T	Working Height (Approx.)	mm	900	1000	1000	1100	1150

Main Motor Configuration can be single or twin as per Model

#### **Broach Pullers**

Pullers are a critical component in broaching operations, ensuring smooth and precise movement of the broach through the workpiece. We manufacture and supply high-quality pullers designed specifically for Vertical and Horizontal Broaching Machines. Our Pullers are engineered for durability, accuracy, and easy interchangeability, helping you achieve consistent production results.



Available in various sizes and configurations, our broach pullers are suitable for a wide range of applications and materials. Whether you require standard pullers or

customized solutions, we provide reliable products that minimize downtime and extend the life of your broaching tools.

#### **Key Features:**

- Manufactured as per DIN 1417 standards, with other international standards available on request
- Precision-machined for accurate alignment
- Heavy-duty construction for long service life
- Compatible with multiple machine models and brands
- Available in both standard and tailor-made designs
- Ensures secure holding and smooth operation of broaches
- Easy to replace and maintain, reducing machine downtime

<sup>\*</sup>Tool stroke/ Tool length may change as per requirement

<sup>❖</sup> Wide Bed available as per requirement

# **AEROSH** (SERVO-HYDRAULIC MODEL)

**AERO SE** (SERVO-ELECTRIC MODEL)

Broaching Force: 6 - 10 Ton **Broaching Stroke: 600 - 1200 mm** 

Creating
World Class
Broaching

POWER BROACH

From shop floor to sky – Powerbroach, with its new AERO Series machines now delivers super precision aviation parts for demanding applications.

### **High Precision Broaching Machine Aero Series**

Description	Capacity	AERO-6T	AERO-10T
Pulling Force	KN	60	100
Maximum Stroke/ Tool Length	mm	600/800	1000/1200
Cutting Speed	m/min	1-6	1-6
Return Speed	m/min	8-10	8-10
Broach Lifter Stroke	mm	200	400
Bolster Hole Dia	mm	60	80
Main Motor	Нр	10	15
Coolant Motor	Lpm	63	63

Bolster Diameter may change as per requirement



# **Machine Features**

- Touch Screen Human Machine Interface
- Automatic Broach Retriever cum Follower
- Hydraulic Oil Air Chiller (for Servo Hydraulic Models)
- Tool Management Chart (48 memory)
- Tool Load Monitoring
- Intelligent Machine Software PB GEN-5.21 (PAGE NO. 32)
- Programmable Coolant Function
- Dual Push Start Button For Operator Safety
- Digital speed control and programable





Broaching Force: 2 - 50 Ton

Broaching Stroke: 400 -1800 mm





# **Surface Broaching Machine**

# **Highlights**

- Broaching the external surface of work pieces
- Accurate positioning, high speed broaching, high accuracy
- Make complicated surface profile in one-pass
- Heavy duty design, build for last 25 years experience in fixture design
- Touch Screen Human Machine Interface
- **Automatic Broach Retriever cum Follower**
- Hydraulic Oil Air Cooler / Chiller
- Tool Management Chart (48 Memory)
- Tool Load Monitoring
- Intelligent Machine Software PB GEN-5.21 (PAGE NO. 32)
- Programmable Coolant Function
- **Dual Push Start Button For Operator Safety**
- Steepless broaching speed adjustment
- Automatic loading/ unloading devices are optional
- CE specification based on requirement
- Digital height control



Surface broaching is 2X to 10X faster than milling, grinding and any other machine

> Contact us to put wings on your Productivity.



Pulling Capacity: 50 - 250 KN

POWER BROACH

Broaching Stroke: 800 - 2000 MM



# **SERVO ELECTRIC SURFACE BROACHING MACHINE**

# **Machine Features**

- **Servo Motor + Precision Screw Drive** → Provides consistent low-vibration broaching, increasing tool life by up to 25%.
- **Energy Efficient** → **Compared to** traditional hydraulic machines, the electrical mechanical design saves up to 50% electricity.
- ✓ User-Friendly Software Screen Makes operation and diagnostics easy.
- Flexible Settings → Broaching speed and stroke can be adjusted via HMI.
- Simple Installation → Low working height, no need for digging pits.
- **Vibration Reduction** → **Broach** retriever holds the broach firmly, reducing vibration during broaching.
- Safety & Maintenance → CE-certified safety design with easy maintenance
- **Intelligent Machine Software PB GEN-5.21**



















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#### **PRODUCT SPECIFICATIONS**

Description	Capacity	SB-6T sh	<b>SB-10Т</b> sн	SB-16TsH	SB-20TsH	SB-25TsH
Pulling Force	KN	60	100	160	200	250
Maximum Stroke	mm	400	800	1200	1600	2000
Cutting Speed	m/min	1-7	1-7	1-6	1-6	1-5
Return Speed	m/min	6-8	6-8	6-8	6-8	6-8
Ram width	mm	150	250	350	380	430
Main Motor	Нр	10	15	20	25	30
Coolant Motor	Lpm	40	63	100	160	250

Note: Tool stroke/ Tool length may change as per requirement











SB-20T sh



#### PRODUCT SPECIFICATIONS

岁	<u>Description</u>	<u>Units</u>	SB-5TSE	SB-10TSE	SB-15TSE	SB-20T SE	SB-25TSE
MACHINE	Pulling Force	KN	50	100	150	200	250
	Maximum Stroke	mm	600	1000	1400/1600	1600/1800	1600/1800
N H	Cutting Speed	m/min. 60 Hz	8	8	8	10	10
BROACHING	Return Speed	m/min. 60 Hz	12	12	12	12	12
	Ram width	mm	300	350	450	500	550
SURFACE	Main Motor	KW	5.5	11	15	22	30
SUF	Machine Height (Approx.)	mm	2000	2500	3600	4000	4500

Note: Above specifications are subject to change over time as PowerBroach continuously Updates the machine models.





#### HORIZONTAL BROACHING MACHINE



# HIGHLIGHTS (HB SERIES)

- One (1) No. Digital Speed & Force Control
- One (1) No. 7" HMI Touch Screen Human Machine Interface
- Hydraulic System Gives Infinity Variable Cutting Speeds
- Dead Constant Draw Speeds Ensure Optimum Tool Life and Fine Surface Finish
- Automatic Broach Retriever cum Follower
- Dual Push Start Button For Operator Safety
- Power failure recovery (Machine Start from same position where operation stopped)
- Hard fixture bed plate
- Easy tool Length adjustment
- Lubrication pump timer based
- Deep Chip carrier easily removal
- Low power consumption
- Compact foot frame with high rigidity
- Two Puller hanger with machine
- Bed flash through coolant (optional)
- Magnetic chip conveyor (optional)
- Hydraulic Oil Air Cooler (optional)







Discription	НВ 5Т	НВ 16Т
Tractive Force (Minimum) (kg)	5000	16000
Stroke (Minimum) (mm)	1320	1600
Cutting Speed (m/min) ( Digital Variable )	1-10	1-6
Return Speed ( Digital Variable )	6-10	4-8
Total Power	6.5	30
Work piece Dia with Coolant Guard (Maximum)	200	500
Work piece Height when using Broach Feeder (Maximum)	120	300
Broach Dia. With Std. Accessories: DIN 1417 (Maximum)	32	90
Clearance between Guide way (Minimum)	150	250
Dia. Of Bore in Machine Bed (optional)	80/100	150/200
Dia. Of Bore in Broach Ram: (Minimum)	60	80
Hylraulic Oil Capacity(Minimum)	180	450
Coolant Oil Capacity	80	180
Broach Shank Dia. (Maximum)	25	50



# **Software PB Gen 5.21 Features**

POWER BROACH PATENT SOFTWARE	OLD VERSION	VERSION 22-24	VERSION 25
Features	PB Gen-5	PB Gen-5.1	PB Gen-5.21
7 inch HMI	Υ	Υ	Υ
48 Tool Memory	N	Υ	Υ
Digitally speed control	N	Υ	Υ
Programmable	N	Υ	Υ
Power Saving	N	Υ	Υ
History	Υ	Υ	Υ
Tool management chart	Υ	Υ	Υ
Component bore undersize notification	N	Υ	Υ
Crawling Speed Up	N	Υ	Υ
Crawling Speed Down	N	N	Υ
Soft opening Puller jaws	N	Υ	Υ
Power failure Restart functoin	N	Υ	Υ
Robo interface ready	N	Υ	Υ
Live Load on Tool	N	Υ	Υ
Tool blunting Notification	N	Υ	Υ
Bed Flush Coolant Commandable	N	Υ	Υ
Auto cleaner Programmable	N	Υ	Υ
D.P.S. (Double Pass Safety)	N	N	Υ
Coolant Flow Programmable	N	N	Υ

Note: PB Gen-5.1 to PB Gen-5.21 version is upgradable for few features. Please contact your local Powerbroach company representative.

# **POWER BROACH MOMENTS**





























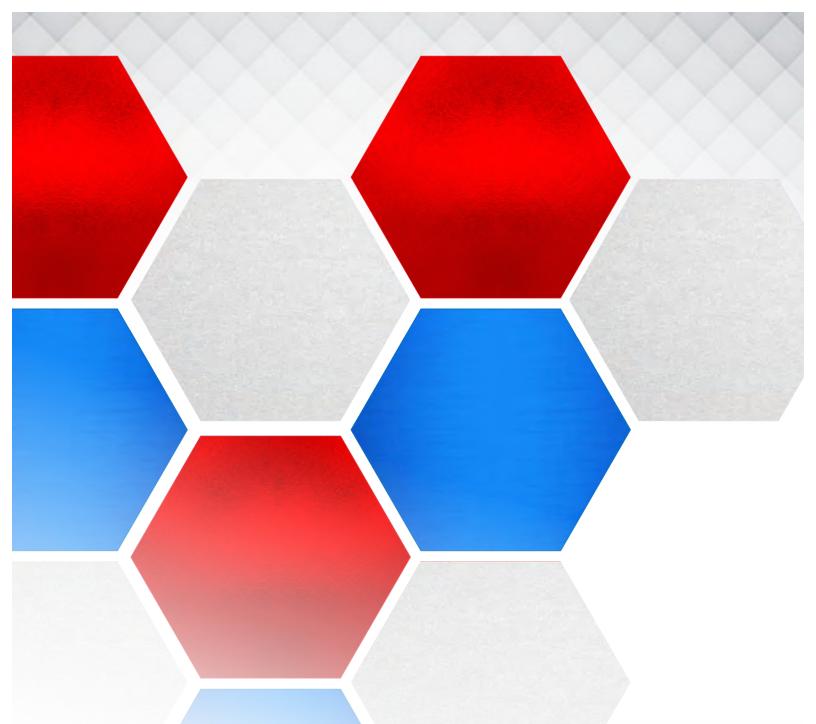


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