### To Meet The Diverse Needs

- Carrier
- Generator
- Commercial lawn mower Log splitter

- Engine driven sprayer Pressure washer
- Multifunctional machinery
   Shredder
- Orchard sprayer
- Snow thrower
- Reaper equipment
  - Water pump
- Rice transplanter
- Transplanting equipment

- Gasoline engine welder
- Power trowel
- Plate compactor
- Road cutter
- Spray paint equipment

# **Optional Configurations**

- A variety of output shafts
- Electric starter (GT1000 and GT1300)
- Dual element air cleaner (GT600 and GT1300)
- Oil bath air cleaner (GT600, GT1000 and GT1300)
- Low oil alert
- Resin fuel tank (GT241, GT400 and GT600)
- Tail pipe (adjustable direction)
- Spark arrester available
- Different direction recoil starter extented length rope available
- Remote control mode
- Spark plug cap (meet EMC requirement)
- AC power generation coil
- 1/2 speed reduction

Brilliant Group Industry Inc.

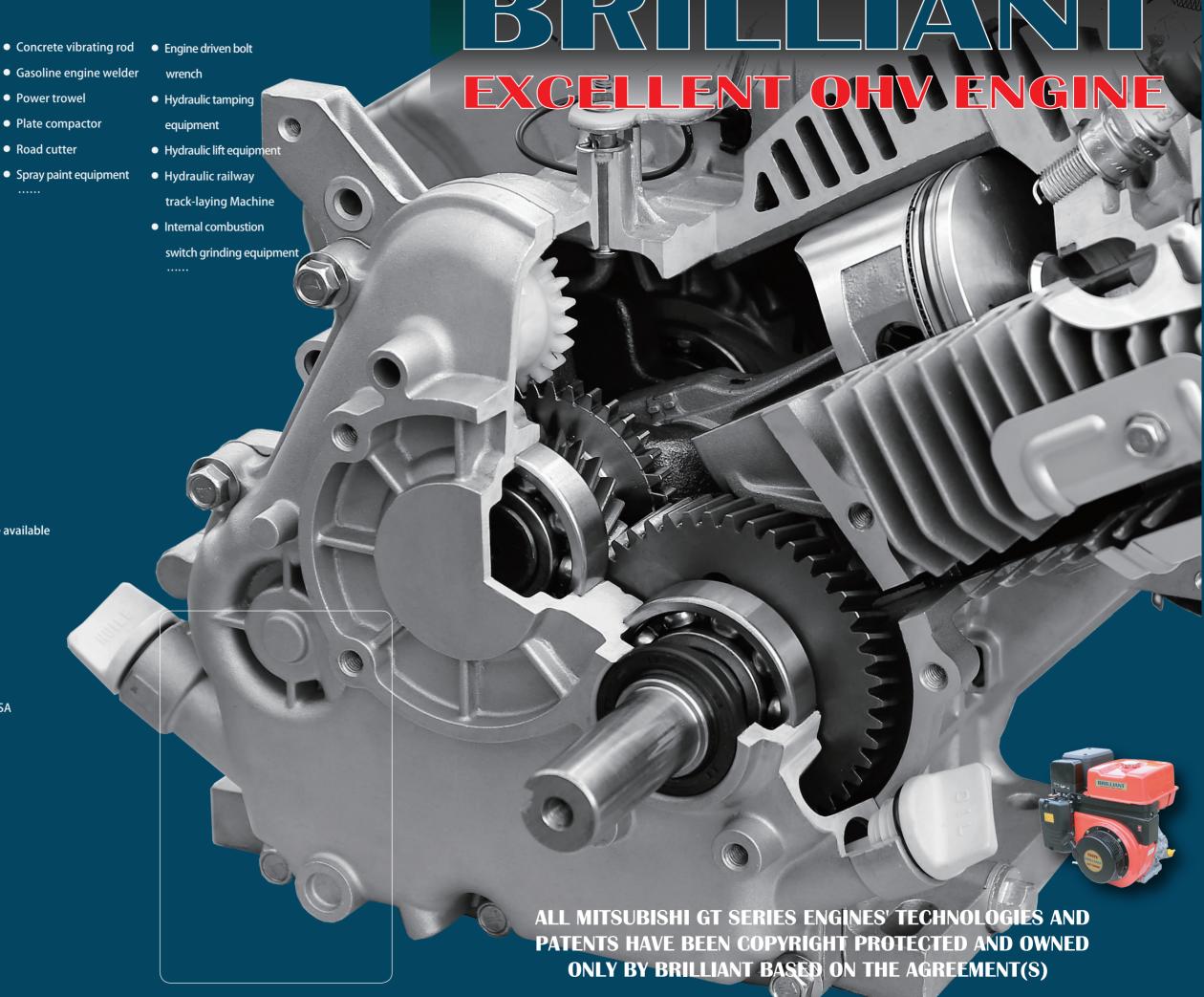
159 N. Central Ave., Valley Stream, NY 11580, USA Tel: +1-516-218-2810 Fax: +1-516-706-3262

9123 Santa Anita Ave., Rancho Cucamonga, CA 91730, USA Tel: +1-909-581-1212 Fax: +1-909-581-1215 www.brilliantindustry.com E-mail: info@brilliantindustry.com US telephone toll-free No.: 888-666-0292

Shanghai Brilliant Trading & Development Co., Ltd. Floor 33, 257 Siping Road, Shanghai 200081, China Tel: +86-21-6521 2718, Fax: +86-21-6521 4386 E-mail: engine@brilliantglobe.cn

Manufacture: Shanghai Xingbo Industrial Co., Ltd. 67 Caoli Road, Fengjing Town, Shanghai 201502, China Tel: +86-21-5736 4891, Fax: +86-21-5736 1738 www.brilliantengines.com

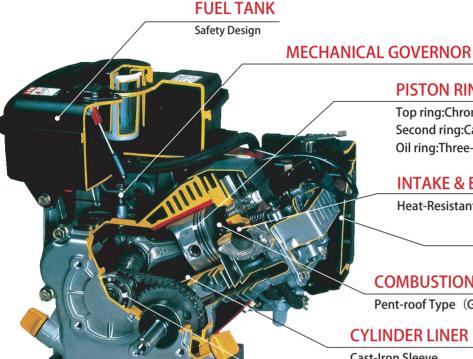






# **OHV Air Cooled Gasoline Engine**

# GT Series



High Powe **Lower Noise** Durable Rceoil Design 3600/1800

### **PISTON RING**

Top ring:Chromium plate Second ring:Cast-iron Oil ring:Three-piece ring

#### **INTAKE & EXHAUST VALVE**

**Heat-Resistant Alloy** 

AIR CLEANER

Large Volume

#### **COMBUSTION CHAMBER**

Pent-roof Type (GT241、400、600)

CYLINDER LINER

Cast-Iron Sleeve

MAIN BEARING

**Durable Ball Bearing** 

**CE & EU Stage II EPA Phase 3 & CARB China National Emission Stage II** Certified

### A New Standard In OHV Performance

The quality of engine has been established by satisfying the various needs of each customer in Japan and worldwide constantly. With 60 years of practice, development and integrated experience, our engine has been matured to near perfection as the world's leading general engine.

The current fully developed combustion technologies are polished to employ the pent-roof type combustion chamber to replace the traditional bathtub type combustion chamber. As a result, a smooth air flow with reduced bent loss is achieved in the intake / exhaust

passages. The spark plug near the center of the combustion chamber helps to increase output by up to 10%.

In the laboratory, our engines achieved the commercial standard of durability at full load testing. With approved rigorous outdoor exposure test, rapid response and well performed applications on both low temperature and high temperature environment, our new series of engines actually succeeded in achieving the "GT Series' highest quality level standard.

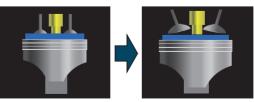
#### The features of new OHV GT series

Clean and powerful engine with ideal shape of combustion chamber

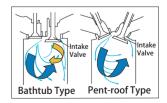
"PENT-ROOF TYPE"

combustion chamber (In addition to GT1000/GT1300)

- Smooth Air Flow
- Centered Spark Plug







# Performance Puts OHV GT Series A Step Ahead

**Product Features** 

### **High Surge Power with Excellent Speed Adjustment**

Optimizing Camshaft outline and decreasing the rubbing of parts, etc., increase the Max. output power, promote performance development space.

The unique speed governing control system produces a completely developed power performance, while increasing the engine stability on both idling and full speed rotation stage.

### **Lower Noise, Lower Vibration**

Increasing the inflexibility of the cylinder block and improving the shape of cooling fan, make wind noise minimized, the latest designed cam contour reduces the noise of valve transmission to control mechanical motion noise substantially. Research the material and shape of the reciprocating movement part carefully, decrease the part weight which reduce the vibromotive force and optimize equilibrium rate of the crankshaft to control the engine's vibration furthest.

### **High Durability**

The crankshaft, intake and exhaust valves, and other main components have been reinforced along with enlarged ball bearings. The governor shaft, throttle shaft and choke shaft have been dustproofed to minimize unnecessary wear and tear. Extended duration of endurance test can be performed as needed with our improved

### Easy Start Recoil Design

Improved mechanical de-compression mechanism system, through more stringent management to achieve greater consistency, allowing you to experience the easier recoil starting pulling. Compared to the traditional engine, the force of recoil reduced over 15% on tension, which is defined as starting at easiest possible.

The GT series engines, equipped with the industry's highest standard of carburetor anti-corrosion treatment, inhibited corrosion of longterm fuel placement, improved starting performance.

### **GT 1/2 Speed Reduction Engine**

### **Optional** models

GT400 L Type



GT600 L Type



GT1000 L Type



GT1300 L Type





### The smallest size, The maximized torque

GT400, GT600, GT1000 (except for GT1300) adopted internal speed reduction technology, achieved the smallest size, maximized torque among the same category engines, the best installation mount size, and minimized power loss. Guaranteed the stability of applications during operation.

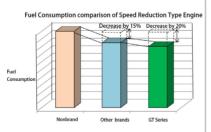


GT Speed reduction



### The optimized fuel economy

Compared with products of other brands, the fuel consumption is decreased by 15%~20%, through Fuel the stable power output, ensure optimized running and fuel economy.



### Long-life

Adopting forged camshaft and crankshaft, oblique tooth gear transmission, decrease transmission noise, ensure longest operation running time.



#### **Industrial Plant Facility**

# THE REPORT OF THE PARTY OF THE







### Professionalized quality management





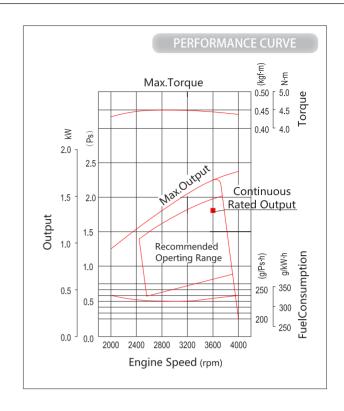
- A multinational corporation group with over 20 years history.
- A commercial grade general-purpose gasoline engine brand originated from United States.
- All Mitsubishi GT series engines' technologies and patents have been copyright protected and owned only by Brilliant based on the agreement(s).

**Global Group Corporation** 









Displacement 79.6cc

Rated output 1.3kW/3600rpm (1.8PS/3600rpm)

Max. output 1.8kW/4000rpm (2.4PS/4000rpm)

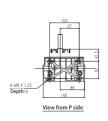
Max. torque 4.31/3000N • m/rpm

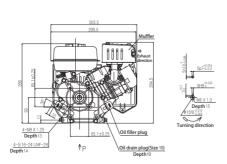
0.44/3000kgf • m/rpm

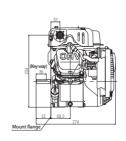
Fuel tank capacity 1.5L Dry weight 9.5kg

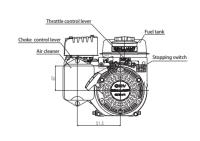
Outline dimension L: 274mm × W: 303.5mm × H: 284.5mm

# P type







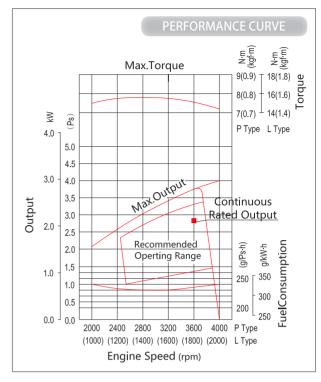












Displacement 126.8cc

Rated output P type: 2.1kW/3600rpm (2.8PS/3600rpm)

L type: 2.1kW/1800rpm (2.8PS/1800rpm)

Max. output 2.9kW/4000rpm (4.0PS/4000rpm)

Max. torque P type: 7.65/2800N • m/rpm

0.78/2800kgf • m/rpm

L type: 15.3/1400N • m/rpm

1.56/1400kgf • m/rpm

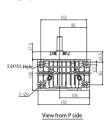
Fuel tank capacity 2.5L

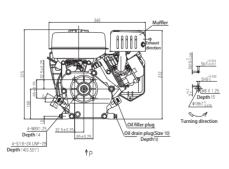
Dry weight P type: 12.7kg

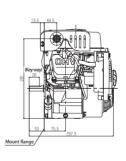
L type: 13.7kg

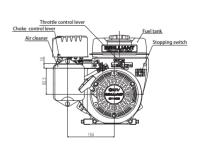
Outline dimension L: 297.5mm×W: 340mm×H: 315mm

### P type

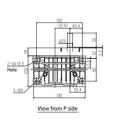


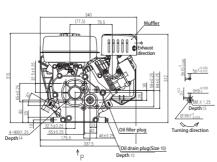


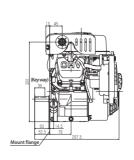


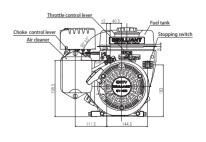


# L type









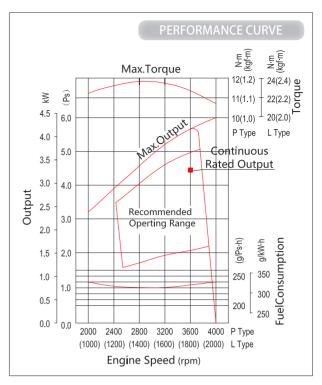




P type: Standard Crankshaft



L type: Internal 1/2 Speed Reduction, Camshaft Output



Displacement 181.6cc

Rated output P type: 3.3kW/3600rpm (4.5PS/3600rpm)

L type: 3.3kW/1800rpm (4.5PS/1800rpm)

4.4kW/4000rpm (6.0PS/4000rpm) Max. output Max. torque

P type: 11.6/2800N • m/rpm

1.18/2800kgf • m/rpm L type: 23.1/1400N • m/rpm

2.36/1400kgf • m/rpm

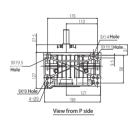
Fuel tank capacity 3.8L

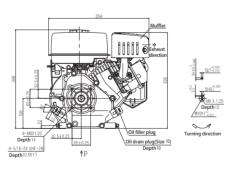
Dry weight P type: 14.9kg

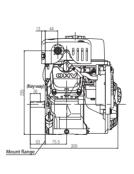
L type: 15.8kg

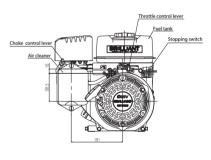
Outline dimension L: 309mm × W: 354mm × H: 348mm



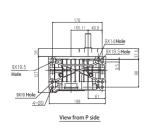


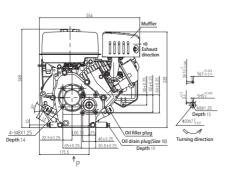


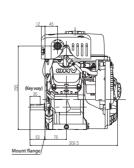


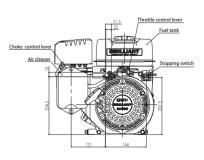


### L type





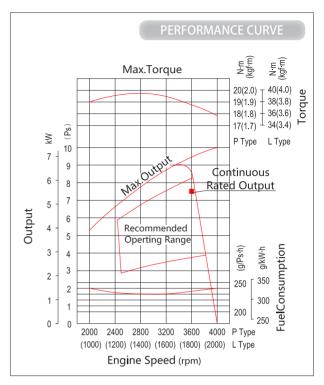






P type: Standard Crankshaft





Displacement 296.6cc

Rated output P type: 5.5kW/3600rpm (7.5PS/3600rpm)

L type: 5.5kW/1800rpm (7.5PS/1800rpm)

Max. output 7.3kW/4000rpm (10.0PS/4000rpm)

Max. torque P type: 19.3/2800N • m/rpm

1.97/2800kgf • m/rpm

L type: 38.6/1400N • m/rpm

3.94/1400kgf • m/rpm

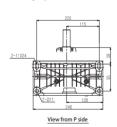
Fuel tank capacity 6.0L

Dry weight P type: 27kg

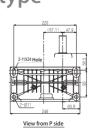
L type: 28kg

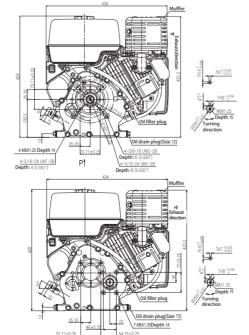
Outline dimension L: 370mm × W: 434mm × H: 428mm

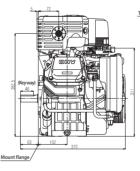
### P type

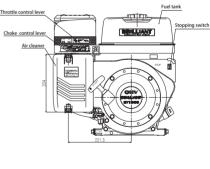


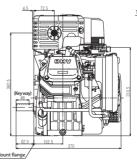
L type

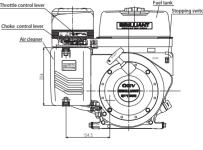












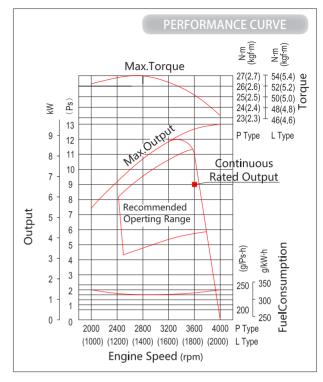




P type: Standard Crankshaft



L type: 1/2 Speed Reduction, Regular Shaft Output



Displacement 391.9cc

Rated output P type: 6.6kW/3600rpm (9.0PS/3600rpm)

L type: 6.6kW/1800rpm (9.0PS/1800rpm)

Max. output 9.5kW/4000rpm (13.0PS/4000rpm)

Max. torque P type: 26.5/2800N • m/rpm

2.70/2800kgf • m/rpm L type: 52.9/1400N • m/rpm

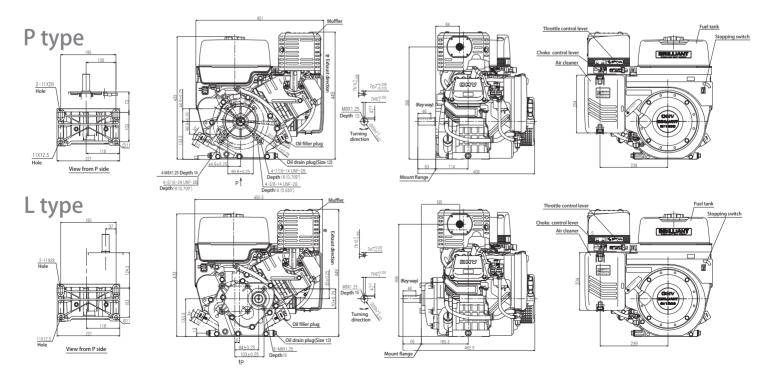
5.40/1400kgf • m/rpm

Fuel tank capacity 6.0L

Dry weight P type: 31kg

L type: 35kg

Outline dimension L: 409 (462.5) mm×W: 451mm×H: 449mm



## Main specifications

ltem Model			GT241	GT400	GT600	GT1000	GT1300
Туре			Air-cooled 4 stroke overhead valve gasoline engine with cylinder inclined by 30 degrees				
No. of cylinders-Bore × Stroke (mm)			1-51.6×38	1-62×42	1-68×50	1-80×59	1-89×63
Displacement (cc)			79.6	126.8	181.6	296.6	391.9
Continuous rated output	P type	kW/rpm (PS/rpm)	1.3/3600 (1.8/3600)	2.1/3600 (2.8/3600)	3.3/3600 (4.5/3600)	5.5/3600 (7.5/3600)	6.6/3600 (9.0/3600)
	L type	kW/rpm (PS/rpm)	_	2.1/1800 (2.8/1800)	3.3/1800 (4.5/1800)	5.5/1800 (7.5/1800)	6.6/1800 (9.0/1800)
Max. output kW/rpm (PS/rpm)			1.8/4000 (2.4/4000)	2.9/4000 (4.0/4000)	4.4/4000 (6.0/4000)	7.3/4000 (10.0/4000)	9.5/4000 (13.0/4000)
Max. torque	P type	N.m/rpm (kgf.m/rpm)	4.31/3000 (0.44/3000)	7.65/2800 (0.78/2800)	11.6/2800 (1.18/2800)	19.3/2800 (1.97/2800)	26.5/2800 (2.70/2800)
	L type	N.m/rpm (kgf.m/rpm)	_	15.3/1400 (1.56/1400)	23.1/1400 (2.36/1400)	38.6/1400 (3.94/1400)	52.9/1400 (5.40/1400)
Engine rotation			Counter-Clockwise (facing PTO)				
Ignition system			Magneto ignition system				
Carburetor			Floating type butterfly valve, horizontal suction type				
Lubrication System			Splash lubrication system				
Lubricating oil			SE Class or higher, SAE#30 (#20 in winter)				
Lubricating oil volume (L)			0.4	0.6	0.6	1.0	1.0
Air Cleaner			Foam Air Filter Element, Paper Air Filter Element, Oil bath type Air Filter Element				
Governor System			Centrifugal hammer method				
Fuel			Unleaded automobile gasoline				
Fuel tank capacity (L)			1.5	2.5	3.8	6.0	6.0
Starting system			Recoil starter Recoil starter or Electric starter				
Dry Weight (Kg)			9.5	12.7 (P type) 13.7 (L type)	14.9 (P type) 15.8 (L type)	27 (P type) 28.5 (L type)	31 (P type) 35 (L type)

- The standard output torque is the value which is measured based on the standard assembly of the engine.
- The shown rotation speed is the rotation speed of output shaft.
- The changes of the engine specifications will not be noticed in advance.

### **Product Presentation**



Agriculture Machine Application Type



Farm Managing Machine Application Type



Construction Machine Application Type

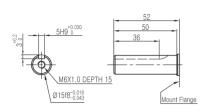


Equipped for Garden and Municipal Administration Equipment

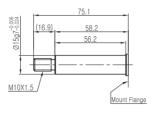
In addition to the above models, we can also develop some new models according to customer's requirements.



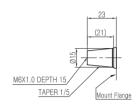
### JIS (KEYWAY)



### JIS (THREAD)

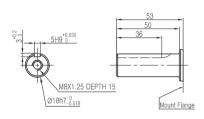


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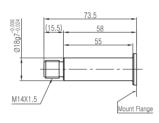


# GT400

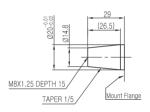
### JIS (KEYWAY)



### JIS (THREAD)

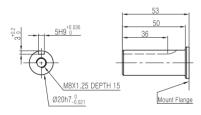


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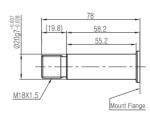


# GT600

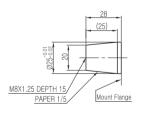
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### JIS (THREAD)

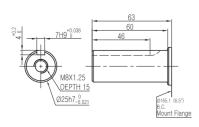


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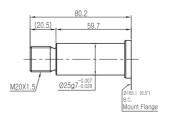


# GT1000/1300

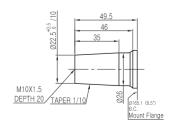
### JIS (KEYWAY)



### JIS (THREAD)



### JIS (TAPER)

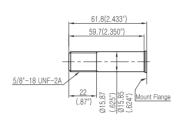


# Output shaft (PTO) specification

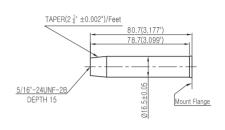
### SAE (KEYWAY)

# 60.5(2.382\*) 58.4(2.299\*) 4.775(.188") 4.724(.186") 4.724(.186") 1/4"-28UNF-2B DEPTH 17 015.85(.624") Mount Flange

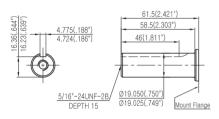
#### SAE (THREAD)



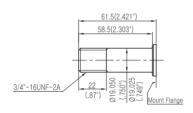
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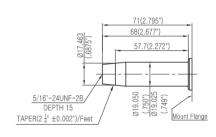
**SAE (KEYWAY)** 



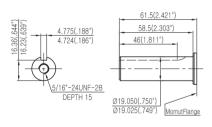
SAE (THREAD)



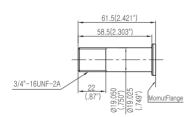
SAE (TAPER)



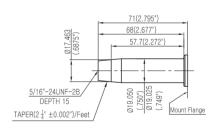
**SAE (KEYWAY)** 



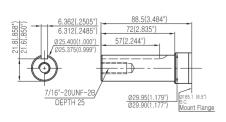
SAE (THREAD)



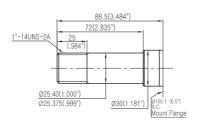
SAE (TAPER)



**SAE (KEYWAY)** 



SAE (THREAD)



SAE (TAPER)

