

# GRIPPING INNOVATION

## Vulcan Series High Temperature Gripper

### Designed for Heavy-Duty, Extreme Hi-Temperature Applications

**Three Sizes Available** with holding capacities from 91 N.m [67.12 ft-lb] to 414 N.m [305.35 ft-lb]

**Hard-Coat Treated Body** to enhance durability

**Optional Fireproof Kevlar Boot** for temperatures up to 450°C [842°F] prevents carbon, dust and metal debris from entering gripper mechanism

**Optional Metal Seals** used without grease to allow gripper to operate in extremely high temperatures up to 450°C [842°F], eliminates downtime and maintenance (Viton Seals with grease standard, up to 160°C)

**Optional Stainless Steel Heat Shield** protects gripper from high temperature heat radiation, carbon and debris.

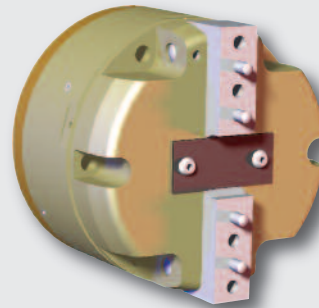
**Air Top or Lateral Blowing Port** cools gripper jaws while removing dust which may have entered the mechanism (Stainless Steel Heat Shield only)

**Stainless Steel Jaws and Hardware** reduces corrosion in hot and humid environment.

**Gripper can be used for both Angular and Parallel Motion applications**

Specifications:	†112M	142M	162M
Torque, Jaws @ 0°			
6 bar w/Spring	91 N*m	276 N*m	414 N*m
0 bar w/Spring	25.5 N*m	96 N*m	140 N*m
Total Stroke	38.2°	35.2°	34.4°
Weight	1.7 kg	4.1 kg	6.7 kg
Pressure w/o Spring		2-7 bar	
Pressure w/Spring		4-7 bar	
Cylinder Bore Ø	76mm	105mm	120mm
Displacement	87cm <sup>3</sup>	215cm <sup>3</sup>	322cm <sup>3</sup>
Temp. Range (Viton)		-30° - 160°C	

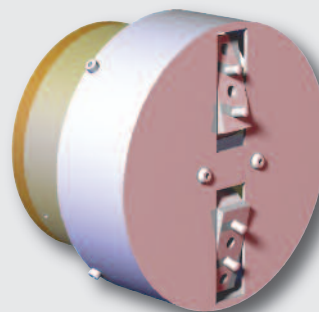
† Contact us for more information



**VULCAN-142M**  
Base Model

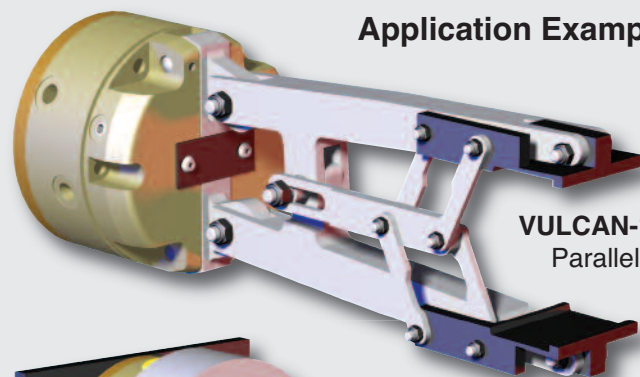


**VULCAN-142M-E3/E5**  
with Fireproof Kevlar Boot

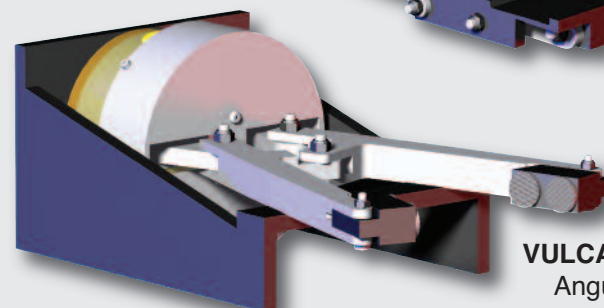


**VULCAN-142M-ET** with  
Stainless Steel Heat Shield

### Application Examples



**VULCAN-142M** with  
Parallel Motion

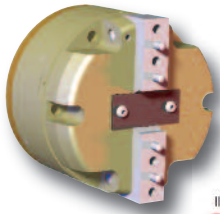


**VULCAN-142M** with  
Angular Motion

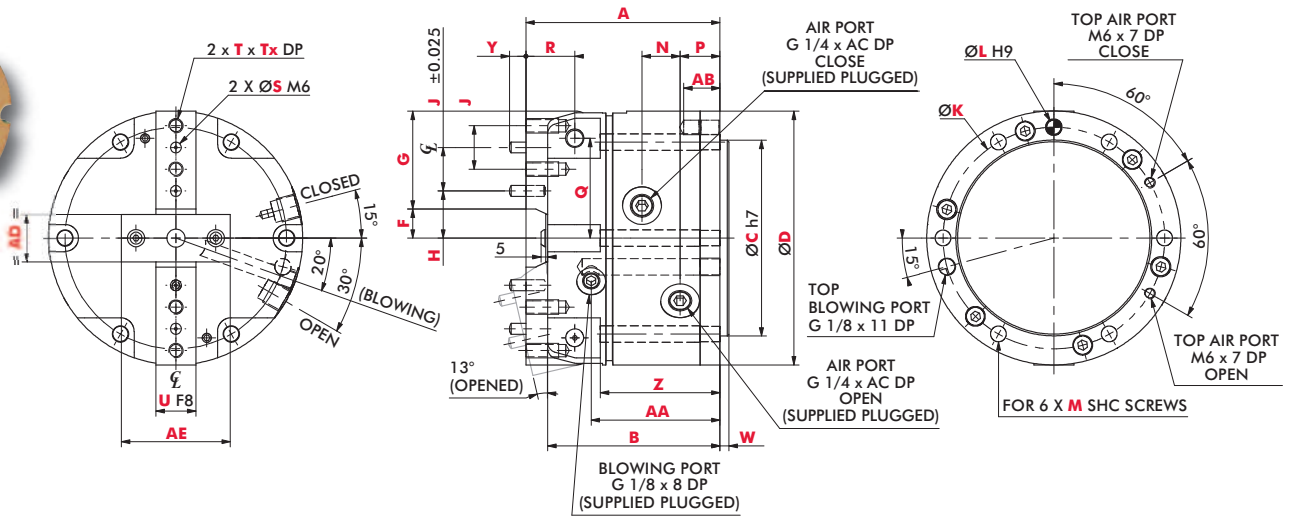


# VULCAN SERIES HI-TEMPERATURE GRIPPER

## Vulcan Series Base Model and Options



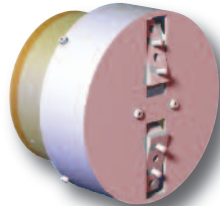
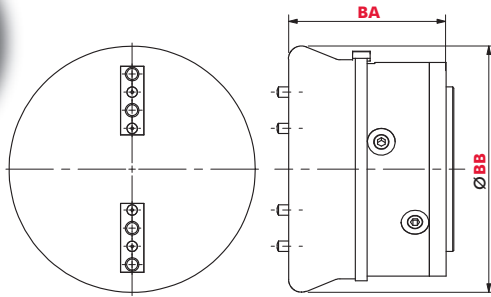
**VULCAN-142M**  
Base Model



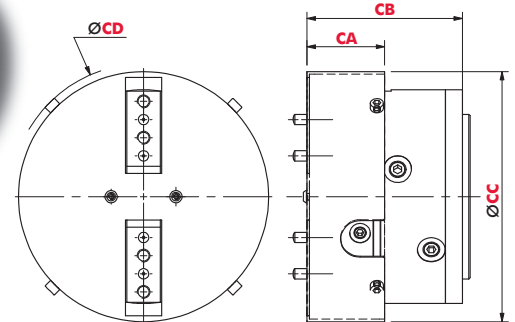
mm [INCH]  
THIRD ANGLE PROJECTION



**VULCAN-142M-E3/E5**  
with  
Fireproof Kevlar Boot



**VULCAN-142M-ET**  
with  
Stainless Steel  
Heat Shield



### Vulcan Series Base Model Dimensions

SIZE	A	B	C	D	F	G	H	J	K	L	M	N	P	Q	R	S	T	Tx
<b>142M</b>	[4.21] 107.0	[3.74] 95.0	[4.25] 107.95	[5.51] 140.0	[0.63] 16.0	[2.13] 54.0	[1.02] 26.0	[0.94] 24.0	[4.81] 122.2	[0.31] 8.0	M8	[0.83] 21.0	[0.87] 22.0	[2.17] 55.0	[1.06] 27.0	[0.24] 6.0	M8	[0.71] 18.0
<b>162M</b>	[4.70] 119.5	[4.13] 105.0	[5.00] 127.0	[6.50] 165.0	[0.93] 23.5	[2.28] 58.0	[1.24] 31.5	[1.10] 28.0	[5.63] 142.9	[0.39] 10.0	M10	[1.03] 26.0	[0.94] 24.0	[2.56] 65.0	[1.26] 32.0	[0.31] 8.0	M10	[0.87] 22

Dimensions shown "mm [inch]"

### Vulcan Series Base Model Dimensions (Continued)

SIZE	U	W	Y	Z	AA	AB	AC	AD	AE
<b>142M</b>	[0.87] 22	[0.20] 5.0	[0.35] 9.0	[2.60] 66.0	[2.80] 71.0	[0.79] 20.0	[0.39] 10.0	[1.02] 26	[2.36] 60.0
<b>162M</b>	[1.02] 26	[0.24] 6.0	[0.43] 11.0	[2.80] 71.0	[3.11] 79.0	[0.87] 22.0	[0.47] 12.0	[1.42] 36	[2.68] 68.0

Dimensions shown "mm [inch]"

### Vulcan Series Options Dimensions

SIZE	BA	BB	CA	CB	CC	CD
<b>142M</b>	[4.29] 109.0	[6.50] 165.0	[2.13] 54.0	[4.33] 110.0	[6.61] 168.0	[6.97] 177.0
<b>162M</b>	[4.78] 121.5	[7.48] 190.0	[2.36] 60.0	[4.72] 120.0	[7.48] 190.0	[8.11] 206.0

Dimensions shown "mm [inch]"

### Optional Features (Leave Blank for Standard)

**VULCAN -** **Size** **142M** **Seals** **HT** **Spring** **RE** **Protection** **E3**

† **112M**  
**142M**  
**162M**

**HT** Dynamic Steel Ring (Up to 450°C)

**RE** Open  
**RI** Closed

**E3** Fire-proof Kevlar Sealed Jaw Boot (up to 275°C)  
**E5** Fire-proof Kevlar Sealed Jaw Boot (up to 450°C)  
**ET** Stainless Steel Heat Shield

**Base Model: VULCAN-142M**  
includes Viton Seals with grease standard (up to 160°C),  
no spring option and no protection

† Contact us for more information