

NOZZLES

Abrasive Blast Nozzles



Abrasive Blast Nozzles

Productivity in the
Most Demanding
Environments





Setting the Standard in Abrasive Nozzle Technology

Every day throughout the world, abrasive waterjet and blasting nozzles from Kennametal set the standard in performance and productivity.

With our unique family of tungsten carbide, boron carbide, SiAlON and ROCTEC® composite carbide nozzles, Kennametal delivers exceptional wear resistance and unmatched performance for your most demanding environments.

Our exclusive ROCTEC® line of abrasive waterjet nozzles are made using our proprietary manufacturing processes and composite carbide material. Created with a unique blend of “binderless”, ultra-fine sub-micron grades, ROCTEC® nozzles are proven to last up to 30% longer than industry standard.

Longer tool life enables you to experience greater dimensional accuracy, faster cutting speeds, and less downtime for replacement — increasing the productivity of your applications.

Kennametal Delivers Value with Abrasive Blast Nozzles

Kennametal is a leading manufacturer of blast nozzles and related flow control devices for contractor abrasive blasting in the construction industry, and for suction and pressure blast cabinets in the manufacturing industry. Offering tungsten carbide, BP200 SiAlON, boron carbide, and aluminum oxide nozzles and inserts in hundreds of sizes and styles, Kennametal can provide the solution to meet your every need.

■ Selection

We offer standard replacement products as well as higher performance upgrades for most OEM products to allow you to achieve optimum blasting effectiveness and efficiency.

■ Quality

We specialize in understanding material systems from the microstructural level to the finished part. Our materials are engineered to match the finished nozzle design — and we utilize only the finest raw materials and expert workmanship to deliver the highest quality products for your applications.

■ Expertise

When you call us for help, you gain instant access to our nozzle experts to diagnose and solve your toughest blasting challenges. Our sales staff has a vast array of nozzle knowledge and blasting applications experience.

■ Quick Response Time

When a nozzle fails, you need a replacement fast. That's why we ship nearly all of our orders within 24 hours.



Your Source for Engineered Wear Solutions

Kennametal also manufactures a host of advanced ceramic-engineered wear parts for the automotive, aerospace, utility, electronics, and machine tool industries. These products consistently deliver unsurpassed wear resistance in abrasion, erosion, corrosion, and thermal heat management.

High Quality, High Performance

At Kennametal, performance is designed into every nozzle we manufacture. We select only high-performance materials to provide extended durability, and use optimum manufacturing methods including hot pressing, sintering, and rapid omnidirectional compaction (ROC) technologies that result in consistent, high-quality part performance.

The Wear Parts Experts

Our mission is to offer outstanding performance and value in everything we do. As a global leader in complex metallurgy and material science, our resources allow us to solve your most complex wear and performance problems.

Advanced materials, innovative design, and an uncompromising adherence to rigorous quality-control procedures have made Kennametal the industry benchmark for cost-effective performance.

Kennametal offers abrasive and flow control nozzles for every application:

- Abrasive Waterjet
- Dry Blasting
- Wet Blasting
- Suction Blast
- Mirco Abrasive
- Scrubber
- Descaling
- Slurry Jet
- Spray Drying
- Centrifuge





**Increase production
without adding cost.
That's Different Thinking.
That's Kennametal.**

XL Performance nozzles are manufactured with BP200 SiAlON material to minimize nozzle weight and overall operator fatigue. These products increase production without adding cost, making your application more efficient.

Innovation, Knowledge & Strength

Inside you'll find nozzles for nearly every abrasive blasting job. You'll also find tips and guidelines on nozzle selection to optimize your investment in our products.



To download the Kennametal Abrasive Blast Nozzle catalog, take advantage of technical support (featuring frequently asked questions), benefit from our blast nozzle cross reference guide, and request an online quotation for any special nozzles or applications please visit **www.kennametal.com**.



LESS ENVIRONMENTAL IMPACT

To learn more about our sustainable solutions for your industry, please contact your Kennametal Representative or Authorized Kennametal Distributor, or visit www.kennametal.com.

Table of Contents

Guide To Blasting Nozzle Selection	9
■ Air and Pressure Requirements	10
■ Air and Pressure Chart	11
■ Bore Size and Nozzle Materials	12
■ Tips on Maintenance	13

Product Review	14
-----------------------	----

Venturi Nozzles

Long Nozzles

■ Tungsten Carbide	
TLVE Series	15
■ BP200 SiAlON	
SN156 Series	16
■ Tungsten Carbide Wide Throat	
T159 Series	18
■ BP200 SiAlON Wide Throat	
SN159 Series	20
■ Boron Carbide	
BLVE Series	22
■ Boron Carbide Wide Throat	
B159 Series	24

Medium Nozzles

■ Tungsten Carbide	
T120 Series	24
■ Boron Carbide	
F Series	25
GV Series	26
K Series	26

Short Nozzles

■ Tungsten Carbide	
TL108 Series	27
T121 Series	27
■ Boron Carbide	
GV Series	29
LV Series	29

Special Venturi Nozzles

XL Performance BP200 SiAlON

■ SN159-XL Series	30
-------------------	----

Double Nozzles

■ Tungsten Carbide	
T125 Series	31
■ Tungsten Carbide Air Induction	
T124 Series	31
■ BP200 SiAlON	
SN125 Series	32

Slip-on Nozzles

■ Tungsten Carbide	
T101 Series	33

Hose Inserts

■ Tungsten Carbide	
T131 Series	34
T132 Series	34
■ Boron Carbide	
B131 Series	34

Tungsten Carbide Square Bore Nozzles

■ Square Shooter™ Series	35
--------------------------	----

Fan Nozzles

■ BP200 SiAlON	
SN FAN Series	36
FAN Series	37

BAZOOKA™ Nozzles

■ Tungsten Carbide	
T159 Series	38
■ BP200 SiAlON	
SN159 Series	39

Straight Bore Nozzles

■ Aluminum Oxide (Ceramic)	
C1 Series	40
C2 Series	40
C3 Series	40
C3L Series	41
CB Series	41
CL166 Series	41
CL197 Series	42
CL198 Series	42
■ Tungsten Carbide	
TC1 Series	43
TL2 Series	43
TL016-4 Series	43
TL100 Series	44
TL104 Series	44
TL107 Series	44
TL117 Series	45
TL166 Series	45
TL170 Series	45
TL171 Series	46
TL172 Series	46
TL175 Series	46
TL197 Series	47
T016 Series	47
T106 Series	47

T109 Series	48
T122 Series	48
T123 Series	49
T130 Series	50
T133 Series	50
T134 Series	51
T137 Series	51
T198 Series	51
T222 Series	52
■ Hozzle Nozzles	52
■ Boron Carbide	
60 Series	53
62 Series	53
75 Series	53
87 Series	54
BVI Series	54
SB Series	54
S198 Series	55
S258 Series	55
S261 Series	55
E Series	56
G Series	57
H Series	58
I Series	59
J Series	59
L Series	60
■ ROCTEC®	
RL2 Series	60

Angle Nozzles

■ Tungsten Carbide	
T045 Series	61
T090 Series	63
T144 Series	65
T145 Series	65
T190 Series	66
T194 Series	66
T245 Series	67
T290 Series	67
■ Hozzle Nozzles	68
■ Boron Carbide	
Banana Series	69
■ ROCTEC®	
R045 Series	70
R090 Series	70
R245 Series	71
R290 Series	71

Wet Blast Nozzles

WIN™ System (Water Induction Nozzles)

■ Tungsten Carbide	
WIN™ System Series	72
Mini WIN™ Series	72
■ BP200 SiAlON	
SN-BP200 SiAlON Series	73

Abrasive Blasting Guns

■ RS-2000 Blast Guns	
RS-2000 Suction Blast Gun	74
RS-2000 Pressure Blast Gun	75
■ RS-2000 Parts	
Hose Kit	75
Suction Blast Air Requirements (SCFM)	75
RS-2000 Replacement Parts	75
■ Tungsten Carbide Air Jets for RS-2000	
TL107 Series	76
■ Tungsten Carbide Nozzles for RS-2000	
TL175 Series	76
■ Boron Carbide Nozzles for RS-2000	
75 Series	77
L230-8 Series	77

Accessories

■ Rubber Washers/Gaskets	78
■ Deflector Tips for Hollo Blaster	78
■ Protection Sleeves for Hollo-Blast	78
■ BNP Suction Gun Extension	78
■ Hose for WIN™ System	79
■ Nozzle Holders	79
■ Thread Adapters	79

Important Safety Information

Increase production without adding cost.



That's **Different Thinking.**

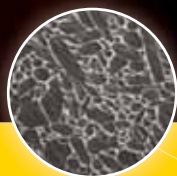
XL Performance nozzles

are manufactured with **BP200 SiAlON** material to minimize nozzle weight and overall operator fatigue. These products increase production without adding cost, making your application more efficient.

A blast nozzle that weighs less and works harder. Now that's Different Thinking. That's Kennametal.

Microstructure of BP200 SiAlON

Elongated grains provide increased toughness over competitive lightweight ceramic nozzles



Increased abrasive velocity

Increased production

Reduced abrasive and labor costs

Lightweight/minimized fatigue

Standard air requirements

Lower compressor fuel costs



www.kennametal.com

A Guide to Blasting Nozzle Selection

Choosing the right blast nozzle for each application is simply a matter of understanding the variables that affect cleaning performance and job costs. There are four basic questions to answer for optimum cost/performance.

1. What Blast Pattern Do You Want?

A nozzle's bore shape determines its blast pattern. Nozzles generally have either a straight bore or a restricted venturi bore. **Straight Bore Nozzles** (Figure 1, Number 1) create a tight blast pattern for spot blasting or blast cabinet work. These are best for smaller jobs such as parts cleaning, weld seam shaping, cleaning handrails, steps, grillwork, or carving stone, and other materials. **Venturi Bore Nozzles** (Figure 1, Numbers 2 and 3) create a wide blast pattern and increase abrasive velocity as much as 100% for a given pressure. Venturi nozzles are the best choice for greater productivity when blasting larger surfaces. Long venturi style nozzles like the BRUISER™ blasting nozzles, for example, yield about a 40% increase in productivity compared to straight bore nozzles, while abrasive consumption can be cut approximately 40%.

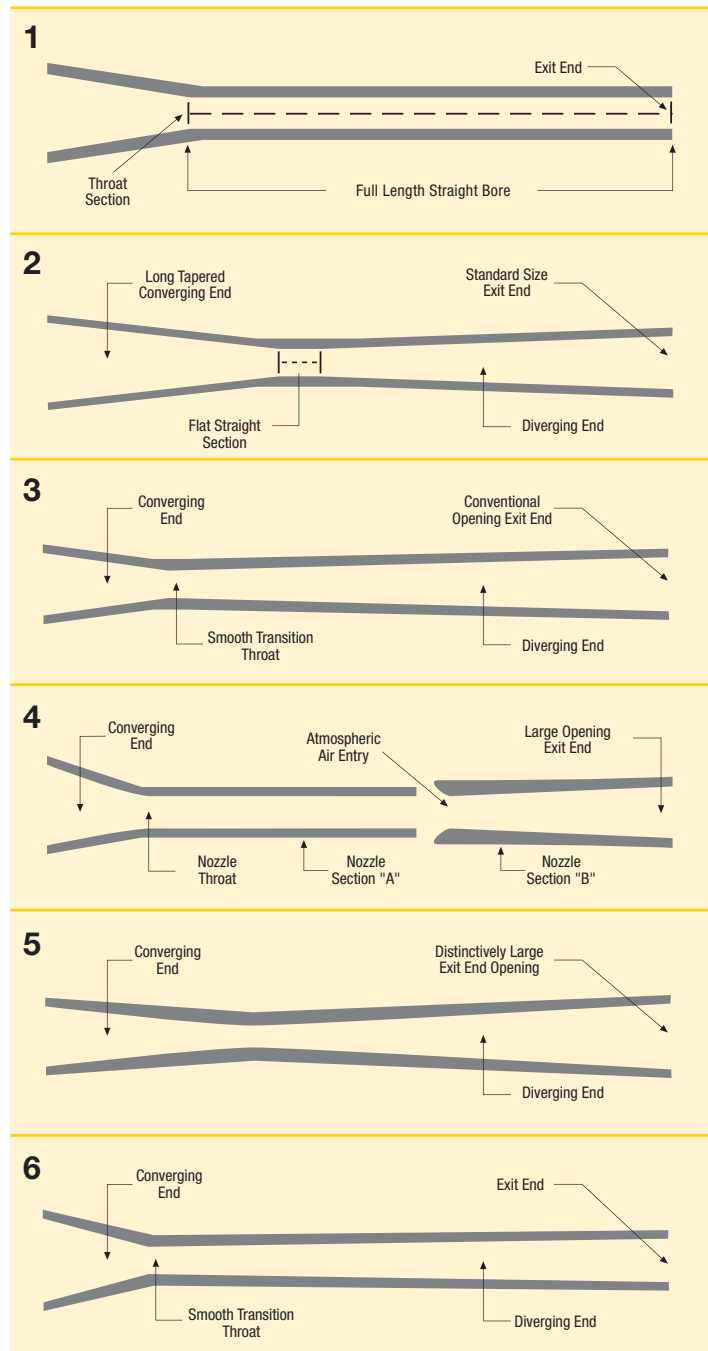
Double venturi and wide throat nozzles are enhanced versions of the long venturi style nozzle.

The **Double Venturi** style (Figure 1, Number 4) can be thought of as two nozzles in a series with a gap and holes in between to allow the insertion of atmospheric air into the downstream segment of the nozzle. The exit end is also wider than a conventional nozzle. Both modifications are made to increase the size of the blast pattern and minimize the loss of abrasive velocity.

Wide Throat Nozzles (Figure 1, Number 5) feature a large entry throat and a large, diverging exit bore. When matched with the same sized

■ **Figure 1. Nozzle Types**

- | | |
|-------------------------------------|-------------------|
| 1. Straight Bore | 4. Double Venturi |
| 2. Conventional Design Long Venturi | 5. High Pressure |
| 3. Laminar Flow Design Long Venturi | 6. High Velocity |



hose they can provide a 15% increase in productivity over nozzles with a smaller throat. When wide throat nozzles also feature a larger diverging exit bore (e.g., BAZOOKA™ nozzle), they can be used at higher pressures to yield up to a 60% larger pattern with lower abrasive use.

XL Performance (Figure 1, Number 6) nozzles increase abrasive particle velocity, allowing for increased stand-off distance, resulting in improved production rates and efficiencies.

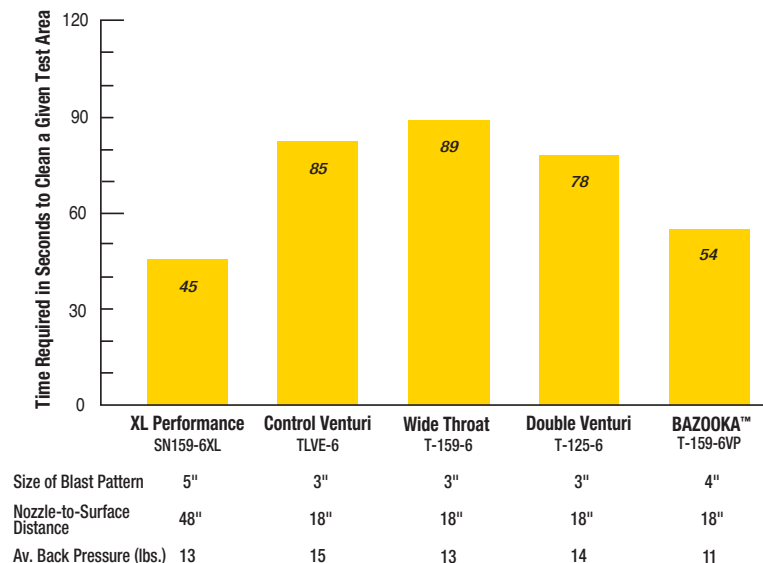
It's also a good idea to have angle nozzles available for tight spots like bridge lattice, behind flanges, or inside pipes. Many operators waste abrasive and time waiting for ricochet to get the job done. The little time it takes to switch to an angle nozzle is always quickly recovered, and total time on the job is reduced.

2. Can Your Compressed Air Supply Support the Nozzle?

As a general rule, the air supply system should be able to provide at least 50% more air volume (cfm) than a new nozzle in order to develop the required working blasting pressure, whether that is 100 psi or 140 psi. This ensures a nozzle can continue to provide good service even after it is slightly worn. Remember, excessive wear should be avoided to prevent a dramatic decrease in productivity.

In addition, the nozzle entry throat must match the inside diameter of your air supply hose. The wrong size combination can lead to wear points, pressure drop, and excessive internal turbulence.

Figure 2. Nozzle Performance Comparison



Data compares the time required for different nozzles to clean a given test area based on the nozzle's blast pattern. Also shown is the average back pressure exerted by each nozzle, an indicator of the effect of nozzle selection on operator fatigue.

Matching Nozzle Size and Compressor Size for Required Production Rate

production rate required (sq. ft./hr)	blast nozzle orifice	production rate at 100 psi nozzle pressure	production rate at 90 psi nozzle pressure	production rate at 80 psi nozzle pressure	compressor size cfm at 100 psi nozzle pressure
Up to 100	1/4"	100	85	70	185 cfm 40 – 50 h,p,
101 – 160	5/16"	160	136	112	250 cfm 60 – 75 h,p,
161 – 230	3/8"	230	195	161	375 cfm 75 – 100 h,p,
231 – 317	7/16"	317	270	222	450 cfm 125 h,p,
318 – 400	1/2"	400	340	280	600 cfm 150 h,p,

This chart is estimated and based upon use of a long venturi nozzle, SSPC-6 commercial blast specification.

Nozzle Pressure, Abrasive Velocity, and Efficiency

blast nozzle pressure	estimated abrasive velocity	estimated efficiency factor
140 psi	588 mph	160%
125 psi	525 mph	138%
110 psi	462 mph	115%
100 psi	420 mph	100%
95 psi	400 mph	93%
90 psi	365 mph	85%
85 psi	330 mph	78%
80 psi	270 mph	70%
75 psi	210 mph	63%
70 psi	190 mph	55%

Nozzle Air and Pressure Requirements Chart

■ Nozzle Pressure – PSI (Bar)

nozzle orifice mm (in)	air, power, and abrasive requirements	50 psi (3,45 bar)	60 psi (4,14 bar)	70 psi (4,83 bar)	80 psi (5,52 bar)	90 psi (6,21 bar)	100 psi (6,89 bar)	125 psi (8,62 bar)
3,2 (1/8)	air: cu m/min (cu ft/min)	0,34 (12)	0,37 (13)	0,42 (15)	0,51 (18)	0,54 (19)	0,59 (21)	0,74 (26)
	horsepower: kw (hp)	1,30 (1,75)	1,49 (2)	1,86 (2,5)	2,24 (3)	2,61 (3,5)	2,98 (4)	4,47 (6)
	abrasive: kg/hr (lb/hr)	32 (70)	36 (80)	41 (90)	45 (100)	50 (110)	54 (120)	61 (135)
4,8 (3/16)	air: cu m/min (cu ft/min)	0,71 (25)	0,85 (30)	0,99 (35)	1,13 (40)	1,22 (43)	1,27 (45)	1,70 (60)
	horsepower: kw (hp)	3,73 (5)	5,97 (8)	6,71 (9)	7,08 (9,5)	7,46 (10)	7,83 (10,5)	11,93 (16)
	abrasive: kg/hr (lb/hr)	68 (150)	77 (170)	91 (200)	98 (215)	109 (240)	118 (260)	145 (320)
6,35 (1/4)	air: cu m/min (cu ft/min)	1,42 (50)	1,56 (55)	1,70 (60)	1,98 (70)	2,12 (75)	2,27 (80)	2,69 (95)
	horsepower: kw (hp)	7,46 (10)	8,95 (12)	9,69 (13)	11,93 (16)	12,68 (17)	13,42 (18)	18,64 (25)
	abrasive: kg/hr (lb/hr)	122 (270)	136 (300)	159 (350)	181 (400)	204 (450)	227 (500)	306 (675)
8 (5/16)	air: cu m/min (cu ft/min)	2,27 (80)	2,55 (90)	2,83 (100)	3,26 (115)	3,54 (125)	3,96 (140)	5,38 (190)
	horsepower: kw (hp)	12,68 (17)	14,91 (20)	18,64 (25)	20,13 (27)	20,88 (28)	22,37 (30)	26,85 (36)
	abrasive: kg/hr (lb/hr)	213 (470)	240 (530)	272 (600)	306 (675)	340 (750)	374 (825)	454 (1000)
9,5 (3/8)	air: cu m/min (cu ft/min)	3,12 (110)	3,54 (125)	4,11 (145)	4,53 (160)	4,96 (175)	5,66 (200)	7,79 (275)
	horsepower: kw (hp)	18,64 (25)	21,63 (29)	23,86 (32)	26,10 (35)	29,83 (40)	33,56 (45)	42,50 (57)
	abrasive: kg/hr (lb/hr)	306 (675)	352 (775)	397 (875)	442 (975)	481 (1060)	499 (1100)	612 (1350)
11 (7/16)	air: cu m/min (cu ft/min)	4,25 (150)	4,81 (170)	5,66 (200)	6,09 (215)	6,80 (240)	7,22 (255)	8,92 (315)
	horsepower: kw (hp)	26,10 (35)	29,83 (40)	33,56 (45)	37,28 (50)	41,01 (55)	44,74 (60)	52,20 (70)
	abrasive: kg/hr (lb/hr)	408 (900)	454 (1000)	544 (1200)	590 (1300)	635 (1400)	703 (1550)	816 (1800)
12,7 (1/2)	air: cu m/min (cu ft/min)	5,66 (200)	6,37 (225)	7,08 (250)	7,79 (275)	8,50 (300)	9,63 (340)	12,18 (430)
	horsepower: kw (hp)	33,56 (45)	37,28 (50)	41,01 (55)	46,98 (63)	52,20 (70)	55,93 (75)	70,84 (95)
	abrasive: kg/hr (lb/hr)	544 (1200)	612 (1350)	680 (1500)	771 (1700)	839 (1850)	919 (2025)	1145 (2525)
16 (5/8)	air: cu m/min (cu ft/min)	8,50 (300)	9,91 (350)	11,33 (400)	12,74 (450)	14,16 (500)	15,58 (550)	19,82 (700)
	horsepower: kw (hp)	52,20 (70)	59,66 (80)	67,11 (90)	74,57 (100)	82,03 (110)	89,48 (120)	111,85 (150)
	abrasive: kg/hr (lb/hr)	862 (1900)	998 (2200)	1089 (2400)	1225 (2700)	1361 (3000)	1497 (3300)	1814 (4000)
19 (3/4)	air: cu m/min (cu ft/min)	12,18 (430)	14,16 (500)	16,28 (575)	18,41 (650)	19,82 (700)	22,66 (800)	31,15 (1100)
	horsepower: kw (hp)	74,57 (100)	85,76 (115)	96,94 (130)	108,13 (145)	119,31 (160)	130,50 (175)	160,33 (215)
	abrasive: kg/hr (lb/hr)	1225 (2700)	1406 (3100)	1588 (3500)	1769 (3900)	1950 (4300)	2132 (4700)	2586 (5700)

This table is to be used as reference only. Actual results may vary depending on specific abrasive medium used. This table is based on abrasive with a bulk density of 100 pounds per cubic foot.

3.) What bore size do you need?

For maximum productivity, select the nozzle bore size based on the desired blast pressure and the available air pressure and flow. For example, assume you are running a 375 cfm compressor at 80% capacity. In addition to the blast cleaning nozzle, the compressor is supplying air to an air helmet and other components such as air motors and pneumatic controls, leaving 250 cfm available for the nozzle. Referring to the chart on the previous page, you can see that 250 cfm is sufficient for a 7/16" nozzle operating at 100 psi. A larger nozzle, or a worn 7/16" nozzle, will require more air flow to maintain 100 psi. This extra flow requirement will either overwork your compressor or decrease productivity. On the other hand, choosing a nozzle with a bore smaller than your compressor can supply will result in less than maximum productivity from the system.

4.) What are the Various Nozzle Material Choices?

Nozzle material selection depends on the abrasive you choose, how often you blast, the size of the job, and the rigors of the job site. Here are general application guidelines for various materials.

Aluminum Oxide "Alumina" (Ceramic) Nozzles

offer good service life at a lower price than other materials. They are a good choice for low usage applications where unit price is a primary factor and nozzle life is less important.

Tungsten Carbide Nozzles offer long life and economy when rough handling can not be avoided and mineral or coal slag abrasives are used. All tungsten carbide nozzles are not equal — Kennametal nozzles feature top wear grade material and durable construction.

BP200 SiAlON Nozzles offer service life and durability similar to tungsten carbide, but are only about half the weight.

BP200 SiAlON nozzles are an excellent choice when operators are on the job for long periods and prefer a lightweight nozzle.

Boron Carbide Nozzles provide long life with optimum air and abrasive use. Boron carbide is ideal for aggressive abrasives such as aluminum oxide and selected mineral aggregates when rough handling can be avoided. Boron carbide will typically outwear tungsten carbide by five to ten times.

ROCTEC® Composite Carbide Nozzles provide even longer life than that of boron carbide nozzles. We currently offer two grades of this popular "binderless" tungsten carbide hard material: ROCTEC® 100 and ROCTEC® 500. This nozzle material is ideal for applications using aggressive abrasives like aluminum oxide and silicon carbide. Special angle nozzles, industrial gun inserts for the popular styles, etching nozzles, and pencil blast nozzles are a few special types of nozzles currently available. Contact us when you have precision requirements in blasting, drilling, or cutting to see if your current nozzle styles are available in ROCTEC®.

■ Service Life Comparisons

Approximate Service Life in Hours

nozzle material	steel shot/grit	slag	aluminum oxide
Aluminum Oxide	20 – 40	10 – 30	1 – 4
Tungsten Carbide	500 – 800	300 – 400	20 – 40
BP200 SiAlON	500 – 800*	300 – 400	50 – 100
Boron Carbide	1500 – 2500	750 – 1500	200 – 1000
ROCTEC®	2500 – 5000+	1500 – 3000+	1000 – 2000+

Estimated values for comparison. Actual service life will vary depending on blast pressure, media size, and particle shape.

* Not recommended for 'H' hardness steel shot/grit.

Reduce Nozzle Replacement Costs

Kennametal's nozzle replacements may cost more initially, but provide much longer service life. The per-hour cost with Kennametal nozzles can be a fraction of the cost of cheaper nozzles.

Proven Methods to Increase Nozzle Service Life

1. Avoid dropping or banging nozzles against anything — materials can break.
2. Be sure to use a nozzle designed for your application and the abrasive you wish to use.
3. Always use the new gasket or washer supplied with your nozzle or nozzle insert. It can help prevent the nozzle's entry throat from being blasted away. Inspect and replace, if necessary, the gasket, or washer after every 10 to 20 hours of use.
4. If you are using a Kennametal nozzle in a flanged holder, rotate the nozzle a quarter turn each week. This will help to ensure more uniform wear and prolong nozzle life.

Inspect and Replace Nozzles

How much wear is too much?

Here are three simple tests:

1. Insert a drill bit of a size that matches the original bore of the nozzle. If there's any slop, it's time to replace it. Nozzle wear means pressure loss. Pressure loss means lost productivity, there is a 1-1/2% loss of productivity for every pound of air pressure lost.
2. Hold an open nozzle up to the light and look down the bore. Any ripple or orange peel effect inside the carbide liner will create internal turbulence that reduces abrasive velocity. If you notice any uneven wear or pressure drop, it's time to replace.
3. Check the nozzle's exterior, too. The materials used to build nozzles are tough, but can be brittle. Nozzle jacketing materials are designed to help protect breakable liners from impact damage. If the jacket is cracked or dented, chances are the liner is also cracked. If the liner is fractured, even with hairline cracks, the nozzle should be replaced immediately. It is not safe to use a cracked nozzle.

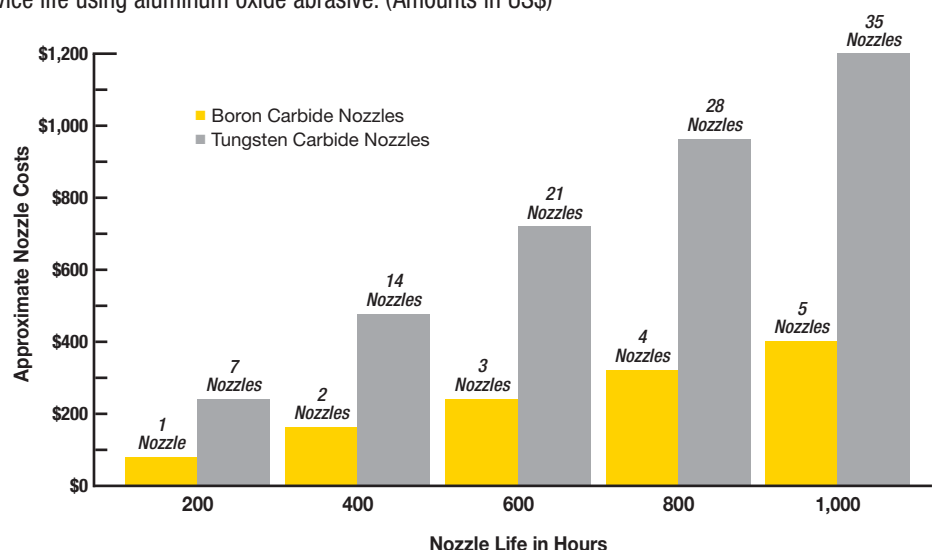
Remember that all nozzles will eventually wear out. Keep a supply of back-up nozzles on hand to minimize down time.

■ Comparing Nozzle Costs

Based on approximate nozzle service life using aluminum oxide abrasive. (Amounts in US\$)

	Boron Carbide	Tungsten Carbide
approximate nozzle cost	\$80	\$35
nozzle life in hours*	200	28
cost per hour*	\$0.40	\$1.20

*Performance may vary based upon pressure, abrasive grit size, quality, and other variables. These data are based on comparative testing under controlled conditions.

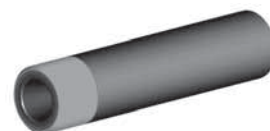
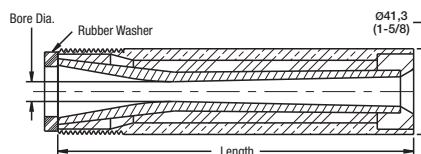


Tungsten Carbide Long

Long venturi style nozzles yield about a 40% greater production rate than straight bore nozzles. The internally tapered design of the venturi nozzle accelerates and evenly distributes the abrasive over the entire blast pattern. These nozzles are designed for use with a 1" I.D. blast hose for maximum cutting action on hard-to-clean surfaces.

Dimensions below are shown in millimeters and (inches).

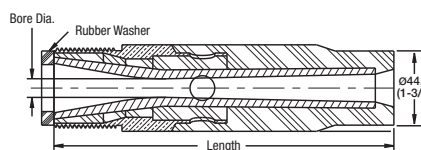
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- For the most physically demanding operations.
- Greatest resistance against breakage.
- All-brass outer body.
- Polyurethane inner cushion.



■ TLVE-Bruiser™ Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939481	B1915630	TLVE-3	4,8	3/16	108	4-1/4
2939480	B1915640	TLVE-4	6,4	1/4	136,5	5-3/8
2939479	B1915650	TLVE-5	7,9	5/16	146,1	5-3/4
2939478	B1915660	TLVE-6	9,5	3/8	171,5	6-3/4
2939477	B1915670	TLVE-7	11,1	7/16	203,2	8
2939476	B1915680	TLVE-8	12,7	1/2	228,6	9

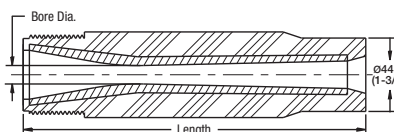
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- For physically demanding operations.
- Less resistance against breakage.
- Brass threads.
- Reinforced polyurethane upper body.



■ TLVE-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939396	B2015630	TLVE-3P	4,8	3/16	111,1	4-3/8
2939392	B2015640	TLVE-4P	6,4	1/4	139,7	5-1/2
2939388	B2015650	TLVE-5P	7,9	5/16	149,2	5-7/8
2939384	B2015660	TLVE-6P	9,5	3/8	174,6	6-7/8
2939380	B2015670	TLVE-7P	11,1	7/16	206,4	8-1/8
2939376	B2015680	TLVE-8P	12,7	1/2	231,8	9-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Recommended where low price is most important.
- Polyurethane jacket.
- Polyurethane threads.
- Competitive price without sacrificing quality.



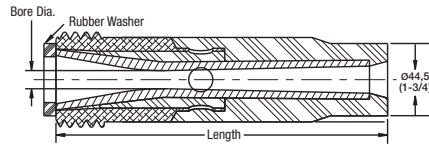
■ TLVE-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939394	B2015633	TLVE-3AP	4,8	3/16	114,3	4-1/2
2939390	B2015643	TLVE-4AP	6,4	1/4	139,7	5-1/2
2939386	B2015653	TLVE-5AP	7,9	5/16	152,4	6
2939382	B2015663	TLVE-6AP	9,5	3/8	177,8	7
2939378	B2015673	TLVE-7AP	11,1	7/16	209,6	8-1/4
2939374	B2015683	TLVE-8AP	12,7	1/2	235	9-1/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

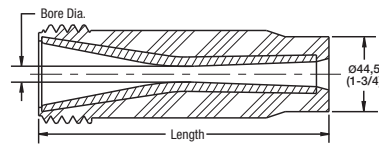
- Thread style: 50mm.
- Polyurethane jacket.
- Aluminum threads.
- Reinforced polyurethane upper body.



■ TLVE 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939395	B2015632	TLVE-350P	4,8	3/16	111,1	4-3/8
2939391	B2015642	TLVE-450P	6,4	1/4	139,7	5-1/2
2939387	B2015652	TLVE-550P	7,9	5/16	149,2	5-7/8
2939383	B2015662	TLVE-650P	9,5	3/8	174,6	6-7/8
2939379	B2015672	TLVE-750P	11,1	7/16	206,4	8-1/8
2939375	B2015682	TLVE-850P	12,7	1/2	231,8	9-1/8

- Thread style: 50mm.
- Polyurethane jacket.
- Polyurethane threads.
- Competitive price in "economy" nozzles without sacrificing quality.



■ TLVE-AP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939393	B2015634	TLVE-350AP	4,8	3/16	114,3	4-1/2
2939389	B2015644	TLVE-450AP	6,4	1/4	139,7	5-1/2
2939385	B2015654	TLVE-550AP	7,9	5/16	152,4	6
2939381	B2015664	TLVE-650AP	9,5	3/8	177,8	7
2939377	B2015674	TLVE-750AP	11,1	7/16	209,6	8-1/4
2939373	B2015684	TLVE-850AP	12,7	1/2	235	9-1/4

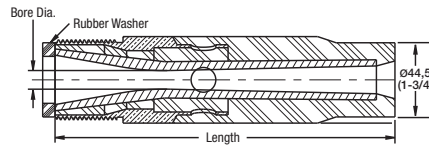
*Contact your Kennametal representative or customer service for quote.

BP200 SiAlON Long

Kennametal's exclusive BP200 SiAlON high-performance long venturi nozzles are designed to replace both silicon carbide and silicon nitride. These nozzles resist breakage better than silicon carbide and are as durable as tungsten carbide. **They are lighter in weight to reduce operator fatigue.**

Dimensions below are shown in millimeters and (inches).

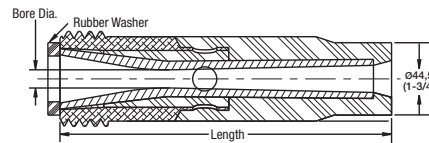
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight BP200 SiAlON liner.
- Polyurethane jacket.
- Brass threads.



■ SN156-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939149	B2615630	SN156-3P	4,8	3/16	106,2	4,18
2939145	B2615640	SN156-4P	6,4	1/4	135,4	5,33
2939140	B2615650	SN156-5P	7,9	5/16	144,8	5,70
2939134	B2615660	SN156-6P	9,5	3/8	170,2	6,70
2939128	B2615670	SN156-7P	11,1	7/16	202,0	7,95
2969203	B2615680	SN156-8P	12,7	1/2	228,6	9

- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Aluminum threads.



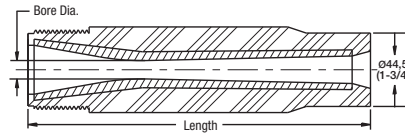
■ SN156-P 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939148	B2615632	SN156-350P	4,8	3/16	106,2	4,18
2939144	B2615642	SN156-450P	6,4	1/4	135,4	5,33
2939139	B2615652	SN156-550P	7,9	5/16	144,8	5,70
2939133	B2615662	SN156-650P	9,5	3/8	170,2	6,70
2939127	B2615672	SN156-750P	11,1	7/16	202,0	7,95
2939123	B2615682	SN156-850P	12,7	1/2	228,6	9

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

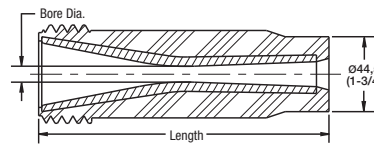
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Polyurethane threads.



■ SN156-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939147	B2615633	SN156-3AP	4,8	3/16	110,0	4,33
2939143	B2615643	SN156-4AP	6,4	1/4	138,4	5,45
2939138	B2615653	SN156-5AP	7,9	5/16	148,1	5,83
2939132	B2615663	SN156-6AP	9,5	3/8	173,5	6,83
2939126	B2615673	SN156-7AP	11,1	7/16	205,0	8,07
2939122	B2615683	SN156-8AP	12,7	1/2	232,2	9,14

- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Polyurethane threads.



■ SN156-AP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939146	B2615634	SN156-350AP	4,8	3/16	110,0	4,33
2939142	B2615644	SN156-450AP	6,4	1/4	138,4	5,45
2939137	B2615654	SN156-550AP	7,9	5/16	148,1	5,83
2939131	B2615664	SN156-650AP	9,5	3/8	173,5	6,83
2939125	B2615674	SN156-750AP	11,1	7/16	205,0	8,07
2939121	B2615684	SN156-850AP	12,7	1/2	232,2	9,14

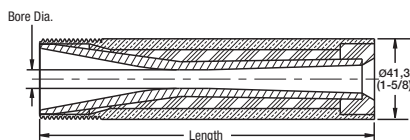
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Wide Throat Long

These nozzles have a 1-1/4" entry in a flanged design, standard 1-1/4" threaded design or 50mm thread. The wider throat opening in this nozzle offers a 15% increase in production over a standard venturi by eliminating restriction and turbulence upstream of the venturi section of the nozzle. All of our wide throat nozzles are designed to be used with 1-1/4" I.D. blast hose.

Dimensions below are shown in millimeters and (inches).

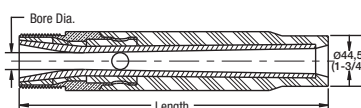
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass jacket.
- Brass threads.



T159 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939472	B1915950	T159-5	7,9	5/16	146,1	5-3/4
2939471	B1915960	T159-6	9,5	3/8	171,5	6-3/4
2939469	B1915970	T159-7	11,1	7/16	203,2	8
2939467	B1915980	T159-8	12,7	1/2	231,8	9-1/8

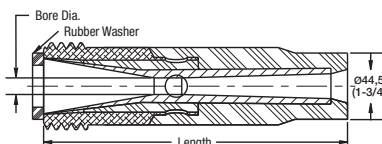
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Brass threads.



T159-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939364	B2015950	T159-5P	7,9	5/16	149,2	5-7/8
2939362	B2015960	T159-6P	9,5	3/8	174,6	6-7/8
2939357	B2015970	T159-7P	11,1	7/16	206,4	8-1/8
2939353	B2015980	T159-8P	12,7	1/2	231,8	9-1/8
2939372	B2015910	T159-10P	15,9	5/8	235	9-1/4
2939369	B2015912	T159-12P	19,1	3/4	235	9-1/4

- Thread style: 50mm.
- Polyurethane jacket.
- Aluminum threads.



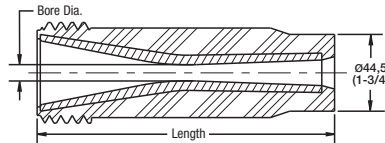
T159-P 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939263	B2085952	T159-550P	7,9	5/16	149,2	5-7/8
2939262	B2085962	T159-650P	9,5	3/8	174,6	6-7/8
2939261	B2085972	T159-750P	11,1	7/16	206,4	8-1/8
2939260	B2085982	T159-850P	12,7	1/2	228,6	9
2939370	B20159105	T159-1050P	15,9	5/8	235	9-1/4
3323810	B20159125	T159-1250P	19,1	3/4	235	9-1/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

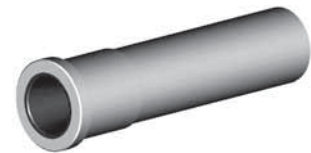
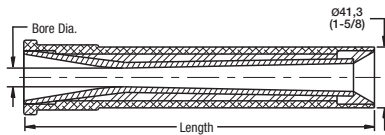
- Thread style: 50mm.
- Polyurethane jacket.
- Polyurethane threads.



■ T159-AP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939363	B2015954	T159-550AP	7,9	5/16	152,4	6
2939358	B2015964	T159-650AP	9,5	3/8	177,8	7
2939354	B2015974	T159-750AP	11,1	7/16	209,6	8-1/4
2939349	B2015984	T159-850AP	12,7	1/2	236,5	9-5/16
2939371	B20159104	T159-1050AP	15,9	5/8	241,3	9-1/2
3353513	B20159124	T159-1250AP	19,1	3/4	241,3	9-1/2

- Flanged aluminum jacket.



■ T159-F Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939470	B1915961	T159-6F	9,5	3/8	171,5	6-3/4
2939468	B1915971	T159-7F	11,1	7/16	203,2	8
2939466	B1915981	T159-8F	12,7	1/2	230,2	9-1/16
2939475	B1915910	T159-10F	15,9	5/8	235	9-1/4
3092074	B1915912	T159-12F	19,1	3/4	235	9-1/4

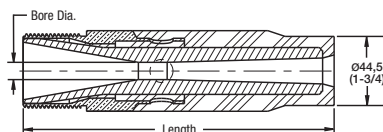
*Contact your Kennametal representative or customer service for quote.

BP200 SiAlON Wide Throat Long

Kennametal's exclusive BP200 SiAlON high-performance wide entry long venturi nozzles are designed to replace both silicon carbide and silicon nitride. These nozzles resist breakage better than silicon carbide. Designed to be used with 32mm (1-1/4") I.D. hose.

Dimensions below are shown in millimeters and (inches).

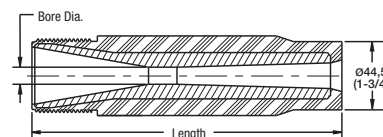
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Brass threads.



■ SN159-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939113	B2615950	SN159-5P	7,9	5/16	144,8	5,70
2939108	B2615960	SN159-6P	9,5	3/8	170,2	6,70
2939101	B2615970	SN159-7P	11,1	7/16	202,0	7,95
2939096	B2615980	SN159-8P	12,7	1/2	228,6	9
2939119	B2615910	SN159-10P	15,9	5/8	230,4	9,07
2939116	B2615912	SN159-12P	19,1	3/4	230,4	9,07

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Polyurethane threads.



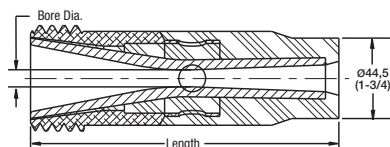
■ SN159-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939110	B2615953	SN159-5AP	7,9	5/16	148,1	5,83
2939103	B2615963	SN159-6AP	9,5	3/8	173,5	6,83
2939098	B2615973	SN159-7AP	11,1	7/16	205,0	8,07
2939091	B2615983	SN159-8AP	12,7	1/2	232,2	9,14

**Contact your Kennametal representative or customer service for quote.*

Dimensions below are shown in millimeters and (inches).

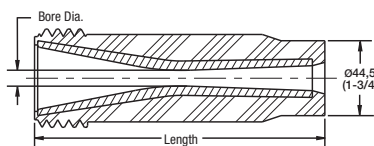
- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Aluminum threads.



■ SN159-P 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939111	B2615952	SN159-550P	7,9	5/16	144,8	5,70
2939104	B2615962	SN159-650P	9,5	3/8	170,2	6,70
2939099	B2615972	SN159-750P	11,1	7/16	202,0	7,95
2939092	B2615982	SN159-850P	12,7	1/2	228,6	9
2939118	B26159102	SN159-1050P	15,9	5/8	230,4	9,07
3759599	B26159122	SN159-1250P	19,1	3/4	230,4	9,07

- Thread style: 50mm.
- Lightest weight.
- Most popular internationally.
- Polyurethane jacket.
- Polyurethane threads.



■ SN159-AP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939109	B2615954	SN159-550AP	7,9	5/16	148,1	5,83
2939102	B2615964	SN159-650AP	9,5	3/8	173,5	6,83
2939097	B2615974	SN159-750AP	11,1	7/16	205,0	8,07
2939090	B2615984	SN159-850AP	12,7	1/2	232,2	9,14
2939117	B26159104	SN159-1050AP	15,9	5/8	230,4	9,07
3579592	B26159124	SN159-1250AP	19,1	3/4	230,4	9,07

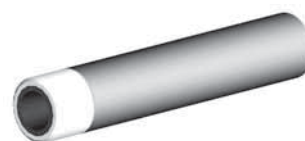
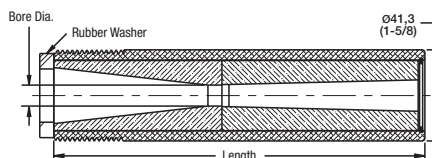
*Contact your Kennametal representative or customer service for quote.

Boron Carbide Long

Boron carbide nozzles offer the longest wear life of any standard nozzle material. Peak nozzle production performance is maintained for longer periods with optimum consumption of air and abrasive. Boron carbide nozzles typically outwear tungsten carbide nozzles by five to ten times. Boron carbide nozzles are recommended for use with abrasives such as aluminum oxide and aggressive mineral aggregates.

Dimensions below are shown in millimeters and (inches).

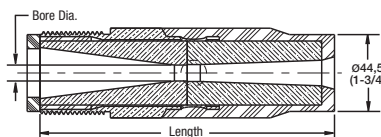
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- High performance.
- 1" entry bore.
- Aluminum jacket.
- Aluminum threads.



■ BLVE Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940171	B1510045	BLVE-4	6,4	1/4	133,4	5-1/4
2940170	B1510056	BLVE-5	7,9	5/16	139,7	5-1/2
2940169	B1510067	BLVE-6	9,5	3/8	165,1	6-1/2
2940168	B1510078	BLVE-7	11,1	7/16	200	7-7/8
2940167	B1510089	BLVE-8	12,7	1/2	219	8-5/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- High performance.
- 1" entry bore.
- Polyurethane jacket.
- Brass threads.



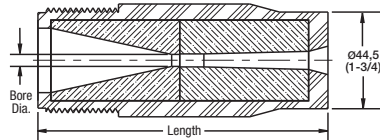
■ BLVE-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940161	B1510245	BLVE-4P	6,4	1/4	133,4	5-1/4
2940160	B1510256	BLVE-5P	7,9	5/16	139,7	5-1/2
2940159	B1510267	BLVE-6P	9,5	3/8	165,1	6-1/2
2940158	B1510278	BLVE-7P	11,1	7/16	200	7-7/8
3013201	B1510289	BLVE-8P	12,7	1/2	219	8-5/8

**Contact your Kennametal representative or customer service for quote.*

Dimensions below are shown in millimeters and (inches).

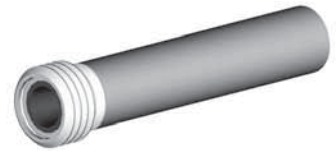
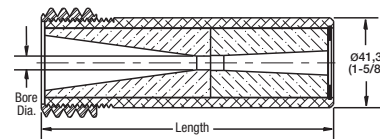
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- High performance.
- 1" entry bore.
- Polyurethane jacket.
- Polyurethane threads.



■ BLVE-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940157	B1510345	BLVE-4AP	6,4	1/4	133,4	5-1/4
2940156	B1510356	BLVE-5AP	7,9	5/16	139,7	5-1/2
2940155	B1510367	BLVE-6AP	9,5	3/8	165,1	6-1/2
2940154	B1510378	BLVE-7AP	11,1	7/16	200	7-7/8
2940153	B1510389	BLVE-8AP	12,7	1/2	219	8-5/8

- Thread style: 50mm.
- High performance.
- 1" entry bore.
- Aluminum jacket.
- Steel threads.



■ BLVE 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940166	B1510145	BLVE-450	6,4	1/4	133,4	5-1/4
2940165	B1510156	BLVE-550	7,9	5/16	139,7	5-1/2
2940164	B1510167	BLVE-650	9,5	3/8	165,1	6-1/2
2940163	B1510178	BLVE-750	11,1	7/16	200	7-7/8
2940162	B1510189	BLVE-850	12,7	1/2	219	8-5/8

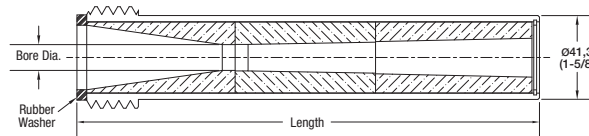
*Contact your Kennametal representative or customer service for quote.

Boron Carbide Wide Throat Long

Wider throat open offers 15% increase in production over standard venturi by eliminating restriction upstream of the venturi section of the nozzle. Designed to be used with 32mm (1-1/4") I.D. hose.

Dimensions below are shown in millimeters and (inches).

- Thread style: 50mm.
- High performance.
- 1-1/4" entry.
- Aluminum jacket.
- Aluminum threads.



■ B159 50mm Contractor Series

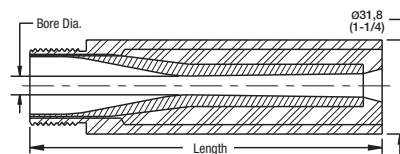
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
5317816	B1515951	B159-550	8,0	5/16	140	5-1/2
5317817	B1515961	B159-650	9,5	3/8	165	6-1/2
3884325	B1515971	B159-750	11,1	7/16	200,2	7-7/8
3884326	B1515981	B159-850	12,7	1/2	222,3	8-3/4
3082372	B15159101	B159-1050	15,9	5/8	222,3	8-3/4
5097138	B15159102	B159-1250	19,1	3/4	222,3	8-3/4

Tungsten Carbide Medium

Medium length venturi nozzles are most effective on jobs where the nozzles are held close to the surface being blasted (18" or less).

Dimensions below are shown in millimeters and (inches).

- Thread style: 3/4 – 14 N.P.S.M.
- Steel jacket.
- Steel threads.
- Excellent for use with spin blasters and pressure cabinets.



■ T120 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939554	B1912030	T120-3	4,8	3/16	88,9	3-1/2
2939553	B1912040	T120-4	6,4	1/4	119,1	4-11/16
2939552	B1912050	T120-5	7,9	5/16	119,1	4-11/16

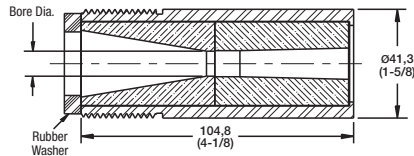
**Contact your Kennametal representative or customer service for quote.*

Boron Carbide Medium

Medium length venturi nozzles are most effective on jobs where the nozzles are held close to the surface being blasted (18" or less).

Dimensions below are shown in millimeters and (inches).

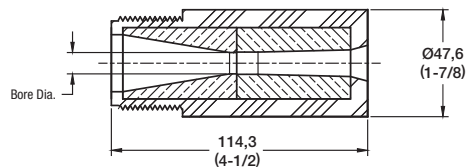
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Steel jacket.
- Steel threads.



■ F Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940239	B1504034	B3M4-F	4,8	3/16	104,8	4-1/8
2940237	B1504044	B4M4-F	6,4	1/4	104,8	4-1/8
2940234	B1504054	B5M4-F	7,9	5/16	104,8	4-1/8
2940232	B1504064	B6M4-F	9,5	3/8	104,8	4-1/8
2940230	B1504074	B7M4-F	11,1	7/16	104,8	4-1/8
2940229	B1504084	B8M4-F	12,7	1/2	104,8	4-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



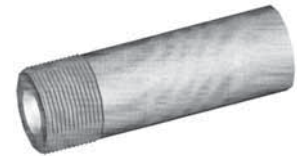
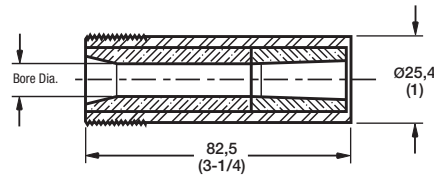
■ F-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940238	B1504035	B3M4-FAP	4,8	3/16	114,3	4-1/2
2940236	B1504045	B4M4-FAP	6,4	1/4	114,3	4-1/2
2940233	B1504055	B5M4-FAP	7,9	5/16	114,3	4-1/2
2940231	B1504065	B6M4-FAP	9,5	3/8	114,3	4-1/2

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

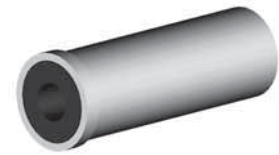
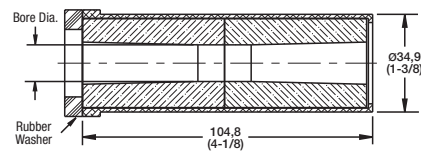
- Thread style: 3/4 – 14 N.P.S.M.
- Steel jacket.
- Steel threads.
- Excellent for use in spin blasters and cabinets



■ GV Series • Medium

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3126354	B1505533	B3M3-GV	4,8	3/16	82,5	3-1/4
2940218	B1505543	B4M3-GV	6,4	1/4	82,5	3-1/4
2964617	B1505553	B5M3-GV	7,9	5/16	82,5	3-1/4
2964618	B1505563	B6M3-GV	9,5	3/8	82,5	3-1/4

- 1-1/2" O.D. flange
- Aluminum jacket.



■ K Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940186	B1508034	B3M4-K	4,8	3/16	104,8	4-1/8
2940185	B1508044	B4M4-K	6,4	1/4	104,8	4-1/8
2940184	B1508054	B5M4-K	7,9	5/16	104,8	4-1/8
3489304	B1508064	B6M4-K	9,5	3/8	104,8	4-1/8
*	B1508074	B7M4-K	11,1	7/16	104,8	4-1/8
*	B1508084	B8M4-K	12,7	1/2	104,8	4-1/8

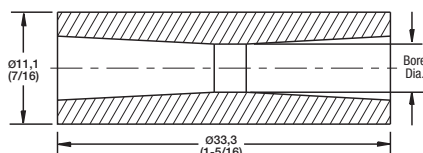
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Short

Short venturi nozzles offer the widest possible pattern at close range. Use these nozzles when blasting 12" or less from the surface.

Dimensions below are shown in millimeters and (inches).

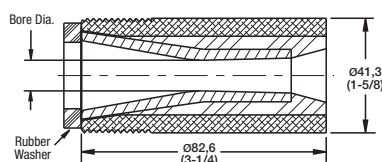
- 7/16" O.D. insert.



TL108 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939908	B1710821	TL108-2	3,4	1/8	33,3	1-5/16
2939907	B1710831	TL108-3	4,8	3/16	33,3	1-5/16
2939906	B1710841	TL108-4	6,4	1/4	33,3	1-5/16

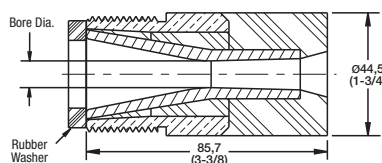
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.



T121 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939550	B1912130	T121-3	4,8	3/16	82,6	3-1/4
2939549	B1912140	T121-4	6,4	1/4	82,6	3-1/4
2939548	B1912150	T121-5	7,9	5/16	82,6	3-1/4
2939547	B1912160	T121-6	9,5	3/8	82,6	3-1/4
2939546	B1912170	T121-7	11,1	7/16	82,6	3-1/4
2939545	B1912180	T121-8	12,7	1/2	82,6	3-1/4
5109811	B1912190	T121-10	15,9	5/8	82,6	3-1/4
2939551	B1912112	T121-12	19,1	3/4	82,6	3-1/4

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Brass threads.



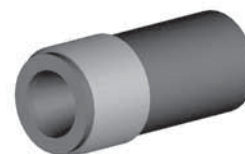
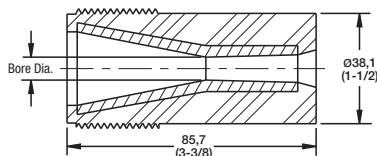
T121-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939311	B2082130	T121-3P	4,8	3/16	85,7	3-3/8
2939306	B2082140	T121-4P	6,4	1/4	85,7	3-3/8
2939301	B2082150	T121-5P	7,9	5/16	85,7	3-3/8
2939296	B2082160	T121-6P	9,5	3/8	85,7	3-3/8
2939291	B2082170	T121-7P	11,1	7/16	85,7	3-3/8
2939287	B2082180	T121-8P	12,7	1/2	85,7	3-3/8
2939283	B2082190	T121-10P	15,9	5/8	85,7	3-3/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

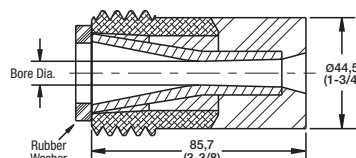
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



■ T121-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939309	B2082133	T121-3AP	4,8	3/16	85,7	3-3/8
2939304	B2082143	T121-4AP	6,4	1/4	85,7	3-3/8
2939299	B2082153	T121-5AP	7,9	5/16	85,7	3-3/8
2939294	B2082163	T121-6AP	9,5	3/8	85,7	3-3/8
2939289	B2082173	T121-7AP	11,1	7/16	85,7	3-3/8
2939285	B2082183	T121-8AP	12,7	1/2	85,7	3-3/8
2939282	B2082193	T121-10AP	15,9	5/8	85,7	3-3/8
2939312	B2082114	T121-12AP	19,1	3/4	85,7	3-3/8

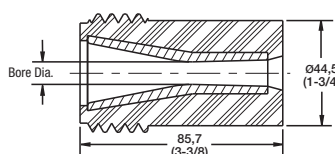
- Thread style: 50mm.
- Polyurethane jacket.
- Aluminum threads.



■ T121-P 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939310	B2082132	T121-350P	4,8	3/16	85,7	3-3/8
2939305	B2082142	T121-450P	6,4	1/4	85,7	3-3/8
2939300	B2082152	T121-550P	7,9	5/16	85,7	3-3/8
2939295	B2082162	T121-650P	9,5	3/8	85,7	3-3/8
2939290	B2082172	T121-750P	11,1	7/16	85,7	3-3/8
2939286	B2082182	T121-850P	12,7	1/2	85,7	3-3/8
*	B2082192	T121-1050P	15,9	5/8	85,7	3-3/8
2939313	B2082112	T121-1250P	19,1	3/4	85,7	3-3/8

- Thread style: 50mm.
- Polyurethane jacket.
- Polyurethane threads.



■ T121-AP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939307	B2082135	T121-350AP	4,8	3/16	85,7	3-3/8
2939302	B2082145	T121-450AP	6,4	1/4	85,7	3-3/8
2939297	B2082155	T121-550AP	7,9	5/16	85,7	3-3/8
2939292	B2082165	T121-650AP	9,5	3/8	85,7	3-3/8
3743432	B2082175	T121-750AP	11,1	7/16	85,7	3-3/8
2939284	B2082185	T121-850AP	12,7	1/2	85,7	3-3/8
3949236	B20821105	T121-1050AP	15,9	5/8	85,7	3-3/8
3871787	B20821125	T121-1250AP	19,1	3/4	85,7	3-3/8

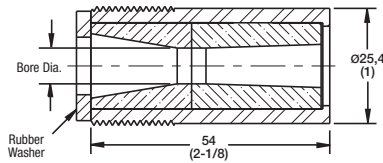
*Contact your Kennametal representative or customer service for quote.

Boron Carbide Short Venturi Nozzles

Short venturi nozzles offer the widest possible pattern at close range. Use these nozzles when blasting 12" or less from the surface.

Dimensions below are shown in millimeters and (inches).

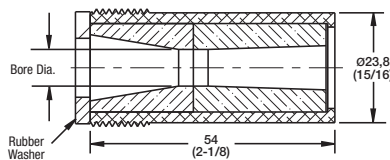
- Thread style: 3/4 – 14 N.P.S.M.
- Steel jacket.
- Steel threads.



■ GV Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940220	B1505532	B3S2-GV	4,8	3/16	54	2-1/8
2940219	B1505542	B4S2-GV	6,4	1/4	54	2-1/8
2940217	B1505552	B5S2-GV	7,9	5/16	54	2-1/8
2940216	B1505562	B6S2-GV	9,5	3/8	54	2-1/8

- Thread style: 1 – 14 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.



■ LV Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940175	B1509532	B3S2-LV	4,8	3/16	54	2-1/8
2940174	B1509542	B4S2-LV	6,4	1/4	54	2-1/8
2940173	B1509552	B5S2-LV	7,9	5/16	54	2-1/8
2940172	B1509562	B6S2-LV	9,5	3/8	54	2-1/8

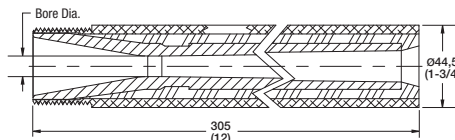
**Contact your Kennametal representative or customer service for quote.*

XL Performance BP200 SiAlON

The XL Performance nozzles increase abrasive particle velocity, resulting in improved production rates and efficiencies. The XL Performance nozzles will utilize the same air (CFM) requirements as our standard long venturi products for the same given bore size, resulting in lower compressed air operating costs per square foot / meter. These products are produced in our popular lightweight BP200 SiAlON material, helping minimize nozzle weight and overall operator fatigue.

Dimensions below are shown in millimeters and (inches).

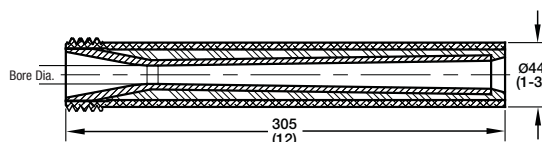
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Aluminum jacket.
- Aluminum threads.



■ SN159-XL12 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3133535	B2615940XL12	SN159-4XL 12	6,4	1/4	305	12
3488188	B2615950XL12	SN159-5XL 12	8,0	5/16	305	12
3019499	B2615960XL12	SN159-6XL 12	9,5	3/8	305	12
3787286	B2615970XL12	SN159-7XL 12	11,1	7/16	305	12
2938629	B2615980XL12	SN159-8XL12	12,7	1/2	305	12

- Thread style: 50mm.
- Lightest weight
- Aluminum jacket.
- Aluminum threads.



■ SN159-XL12 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3103289	B2615942XL12	SN159-450XL 12	6,4	1/4	305	12
3864279	B2615952XL12	SN159-550XL 12	8,0	5/16	305	12
3033375	B2615962XL12	SN159-650XL 12	9,5	3/8	305	12
3864280	B2615972XL12	SN159-750XL 12	11,1	7/16	305	12
2989326	B2615982XL12	SN159-850XL 12	12,7	1/2	305	12
3289985	B26159102XL12	SN159-1050XL 12	15,9	5/8	305	12

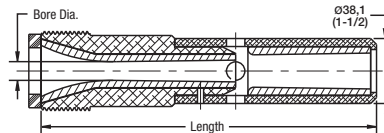
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Double

The double venturi offers a 35% larger blast pattern than a standard long venturi with only a slight loss in abrasive velocity. Designed to be used on jobs where medium cutting action is required with a more even dispersion of abrasive throughout the larger blast pattern. Excellent for plastic or agricultural abrasives.

Dimensions below are shown in millimeters and (inches).

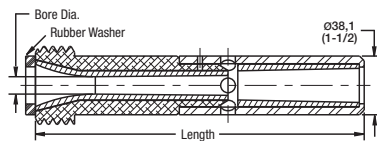
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Metal jacket.
- Aluminum threads.



■ T125 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939534	B1912530	T125-3	4,8	3/16	127	5
2939532	B1912540	T125-4	6,4	1/4	149,2	5-7/8
2939528	B1912550	T125-5	7,9	5/16	160,3	6-5/16
2939524	B1912560	T125-6	9,5	3/8	174,6	6-7/8
2939520	B1912570	T125-7	11,1	7/16	215,9	8-1/2
2939516	B1912580	T125-8	12,7	1/2	235	9-1/4

- Thread style: 50mm.
- Metal jacket.
- Aluminum threads.

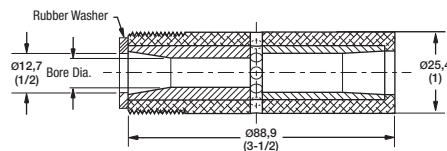


■ T125 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939531	B1912543	T125-450	6,4	1/4	149,2	5-7/8
2939527	B1912553	T125-550	7,9	5/16	160,3	6-5/16
2939523	B1912563	T125-650	9,5	3/8	174,6	6-7/8
2939519	B1912573	T125-750	11,1	7/16	215,9	8-1/2
2939515	B1912583	T125-850	12,7	1/2	235	9-1/4

Tungsten Carbide Air Induction

- Thread style: 3/4 – 14 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.



■ T124 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939537	B1912430	T124-3	4,8	3/16	88,9	3-1/2
2939536	B1912440	T124-4	6,4	1/4	88,9	3-1/2
2939535	B1912450	T124-5	7,9	5/16	88,9	3-1/2
2978250	B1912460	T124-6	9,5	3/8	88,9	3-1/2

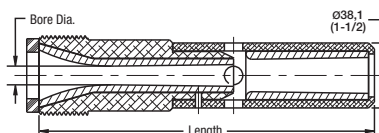
**Contact your Kennametal representative or customer service for quote.*

BP200 SiAlON Double

Offers a 35% larger blast pattern than standard long venturi with only a slight loss in abrasive velocity. Designed for jobs where medium cutting action is required and a more even dispersion of abrasive throughout the larger blast pattern. These nozzles are produced in our popular lightweight BP200 SiAlON material, helping minimize nozzle weight and overall operator fatigue.

Dimensions below are shown in millimeters and (inches).

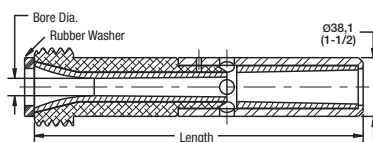
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Aluminum jacket.
- Aluminum threads.



■ SN125 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939169	B2612540	SN125-4	6,5	1/4	127	5
2939165	B2612550	SN125-5	7,9	5/16	149,2	5-7/8
2939161	B2612560	SN125-6	9,5	3/8	160,3	6-5/16
2939157	B2612570	SN125-7	11,1	7/16	174,6	6-7/8
2939153	B2612580	SN125-8	12,7	1/2	215,9	8-1/2
2938654	B2612512	SN125-12	19,1	3/4	237	9,35

- Thread style: 50mm.
- Lightest weight.
- Aluminum jacket.
- Aluminum threads.



■ SN125 50mm Contractor Series

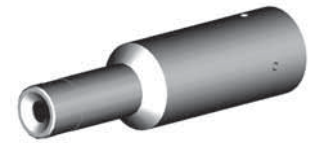
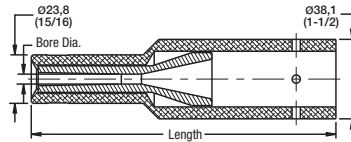
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939168	B2612543	SN125-450	6,5	1/4	149,2	5-7/8
2939164	B2612553	SN125-550	7,9	5/16	160,3	6-5/16
2939160	B2612563	SN125-650	9,5	3/8	174,6	6-7/8
2939156	B2612573	SN125-750	11,1	7/16	215,9	8-1/2
2939152	B2612583	SN125-850	12,7	1/2	235	9-1/4
3562895	B2612513	SN125-1250	19,1	3/4	237	9,35

*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Slip-On

Dimensions below are shown in millimeters and (inches).

- Aluminum jacket.
- Slip-on assembly.



■ T101 Series

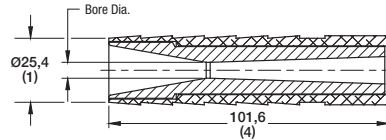
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939585	B1910130	T101-3	4,8	3/16	146,1	5-3/4
2939583	B1910140	T101-4	6,4	1/4	187,3	7-3/8

*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Hose Inserts

Dimensions below are shown in millimeters and (inches).

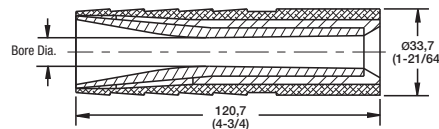
- Aluminum jacket.
- Designed for use with 25mm (1") I.D. hose.



T131 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2954177	B1913140	T131-4	6,4	1/4	101,6	4
2939032	B1913150	T131-5	7,9	5/16	101,6	4
2954176	B1913160	T131-6	9,5	3/8	101,6	4
5326009	B1913170	T131-7	11,1	7/16	101,6	4

- Aluminum jacket.
- Designed for use with 32mm (1-1/4") I.D. hose.



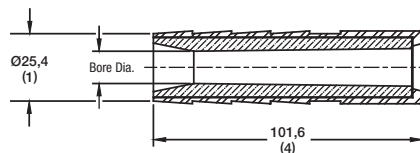
T132 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939508	B1913250	T132-5	7,9	5/16	120,7	4-3/4
2939507	B1913260	T132-6	9,5	3/8	120,7	4-3/4
2939506	B1913270	T132-7	11,1	7/16	120,7	4-3/4
2939505	B1913280	T132-8	12,7	1/2	120,7	4-3/4

Boron Carbide Hose Inserts

Dimensions below are shown in millimeters and (inches).

- Steel jacket.
- Designed for use with 25mm (1") I.D. hose.



B131 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3374195	B1513140	B131-4	6,4	1/4	101,6	4
3343184	B1513150	B131-5	7,9	5/16	101,6	4
3374196	B1513160	B131-6	9,5	3/8	101,6	4
3374197	B1513170	B131-7	11,1	7/16	101,6	4

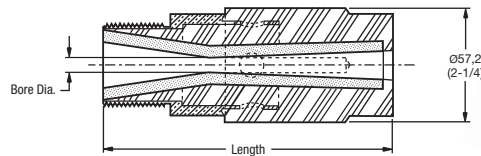
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide Square Bore

The Square Shooter™ blast nozzle production rate is faster than the conventional long venturi high production nozzles. The Square Shooter™ nozzle requires only a 10% to 20% overlap as compared to a long venturi nozzle which requires a 50% overlap. This increase results in abrasive savings due to less abrasive consumption as well as productivity savings.

Dimensions below are shown in millimeters and (inches).

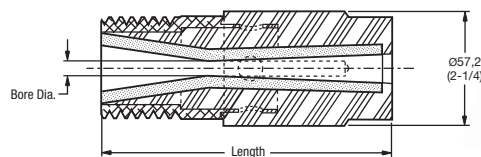
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Brass threads.



■ Square Shooter™ Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939348	B2020040	SS-4	6,4	1/4	139,7	5-1/2
2939346	B2020050	SS-5	7,9	5/16	152,4	6
2939344	B2020060	SS-6	9,5	3/8	171,5	6-3/4

- Thread style: 50mm.
- Polyurethane jacket.
- Aluminum threads.



■ Square Shooter™ 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939347	B2020042	SS-450	6,4	1/4	139,7	5-1/2
2939345	B2020052	SS-550	7,9	5/16	152,4	6
2939343	B2020062	SS-650	9,5	3/8	171,5	6-3/4

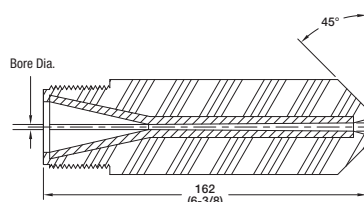
**Contact your Kennametal representative or customer service for quote.*

Fan Nozzles

Excellent for medium cleaning and stripping applications where an even dispersion of the abrasive throughout the wide uniform blast pattern is required. Acceptable for use with most types of abrasives. Designed to be used with 25mm (1") I.D. blast hose.

Dimensions below are shown in millimeters and (inches).

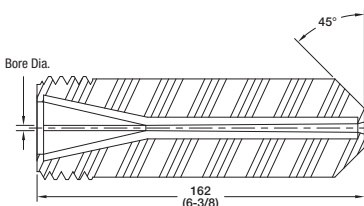
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Polyurethane threads.



■ SN FAN-AP Series • BP200 SiAlON

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
3656970	B2616063	SN FAN-6AP	9,5	3/8	162	6-3/8

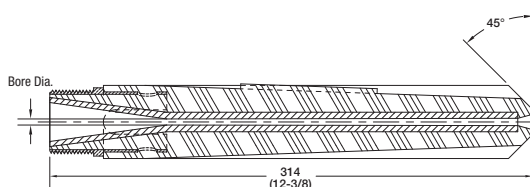
- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Polyurethane threads.



■ SN FAN-AP 50mm Contractor Series • BP200 SiAlON

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
3656969	B2616064	SN FAN-650AP	9,5	3/8	162	6-3/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Brass threads.



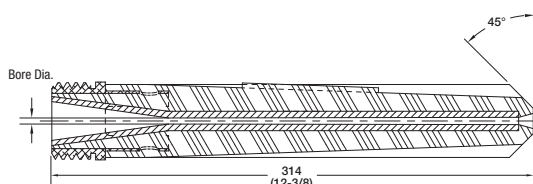
■ SN FAN-P Series • BP200 SiAlON

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
3860113	B1986908	SN FAN-8P	12,7	1/2	314	12-3/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

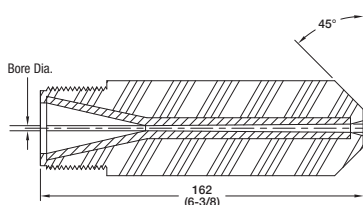
- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Aluminum threads.



■ SN FAN-P 50mm Contractor Series • BP200 SiAlON

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
5294520	B1986912	SN FAN-850P	12,7	1/2	314	12-3/8

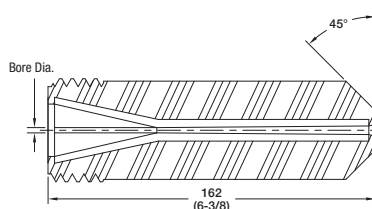
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



■ FAN-AP Series • Tungsten Carbide

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
2938948	B2016063	FAN-6AP	9,5	3/8	162	6-3/8

- Thread style: 50mm.
- Polyurethane jacket.
- Polyurethane threads.



■ FAN-AP 50mm Contractor Series • Tungsten Carbide

order number	catalog number	model number	Bore Diameter		Length	
			mm	in	mm	in
3392345	B2016064	FAN-650AP	9,5	3/8	162	6-3/8

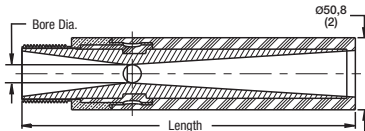
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide BAZOOKA™

For white metal or near white metal blast use at 125 to 150 psi nozzle pressure. For commercial or sweep blast use at 90 to 100 psi nozzle pressure. The BAZOOKA™ yields a 60% larger blast pattern with minimal operator fatigue.

Dimensions below are shown in millimeters and (inches).

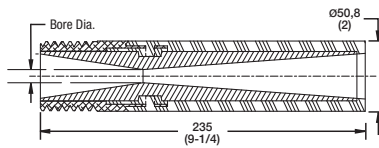
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Brass threads.



■ T159-VP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939366	B2015940V	T159-4VP	6,4	1/4	155,6	6-1/8
2939360	B2015960V	T159-6VP	9,5	3/8	235	9-1/4
2939356	B2015970V	T159-7VP	11,1	7/16	235	9-1/4
2939351	B2015980V	T159-8VP	12,7	1/2	235	9-1/4
2939368	B2015912V	T159-12VP	19,1	3/4	235	9-1/4

- Thread style: 50mm.
- Polyurethane jacket.
- Aluminum threads.



■ T159-VP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939359	B2015961	T159-650VP	9,5	3/8	235	9-1/4
2939355	B2015971	T159-750VP	11,1	7/16	235	9-1/4
2939350	B2015981	T159-850VP	12,7	1/2	235	9-1/4
2939367	B2015913	T159-1250VP	19,1	3/4	235	9-1/4

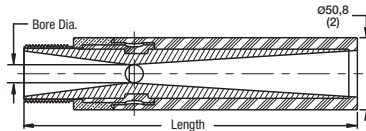
**Contact your Kennametal representative or customer service for quote.*

BP200 SiAION BAZOOKA™

For white metal or near white metal blast use at 125 to 150 psi nozzle pressure. For commercial or sweep blast use at 90 to 100 psi nozzle pressure. The BAZOOKA™ yields a 60% larger blast pattern. These nozzles are produced in our popular lightweight BP200 SiAION material, helping minimize nozzle weight and overall operator fatigue.

Dimensions below are shown in millimeters and (inches).

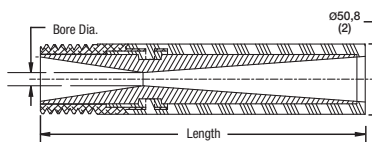
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Polyurethane jacket.
- Brass threads.



■ SN159-VP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3040529	B2615940V	SN159-4VP	6,4	1/4	152	6
2939107	B2615960V	SN159-6VP	9,5	3/8	230	9-1/16
2939100	B2615970V	SN159-7VP	11,1	7/16	230	9-1/16
2939094	B2615980V	SN159-8VP	12,7	1/2	230	9-1/16

- Thread style: 50mm.
- Lightest weight.
- Polyurethane jacket.
- Aluminum threads.



■ SN159-VP 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3396112	B2615941V	SN159-450VP	6,4	1/4	152	6
2939105	B2615961V	SN159-650VP	9,5	3/8	230	9-1/16
2958545	B2615971V	SN159-750VP	11,1	7/16	230	9-1/16
2939093	B2615981V	SN159-850VP	12,7	1/2	230	9-1/16

*Contact your Kennametal representative or customer service for quote.

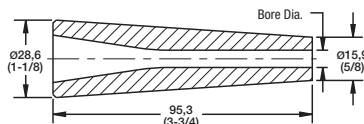
Straight bore nozzles are made for close-range spot blasting. With small blast patterns and little overblast, they are good for cleaning small areas: weldments, grillwork, and railings. If your equipment calls for a non-standard nozzle, we can produce it for you. For special needs, contact us.

Aluminum Oxide (Ceramic)

Kennametal supplies a full line of premium-grade aluminum oxide ceramic nozzles for immediate delivery.

Dimensions below are shown in millimeters and (inches).

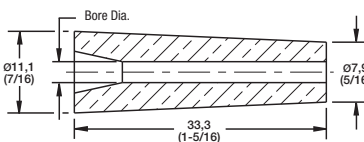
- 1-1/8" O.D., tapered to 5/8" O.D.



C1 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940320	B1213010	C1-1	2,4	3/32	95,3	3-3/4
2940318	B1213020	C1-2	3,2	1/8	95,3	3-3/4
2940316	B1213025	C1-2-1/2	4	5/32	95,3	3-3/4
2940314	B1213030	C1-3	4,8	3/16	95,3	3-3/4
2940312	B1213040	C1-4	6,4	1/4	95,3	3-3/4
2940310	B1213050	C1-5	7,9	5/16	95,3	3-3/4
2940308	B1213060	C1-6	9,5	3/8	95,3	3-3/4

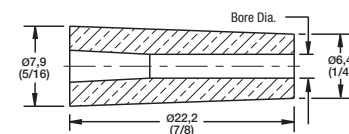
- 7/16" O.D., tapered to 5/16" O.D.



C2 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940306	B1214010	C2-1	2,4	3/32	33,3	1-5/16
2940304	B1214015	C2-1-1/2	2,8	7/64	33,3	1-5/16
2940302	B1214020	C2-2	3,2	1/8	33,3	1-5/16
2940300	B1214025	C2-2-1/2	4	5/32	33,3	1-5/16

- 5/16" O.D., tapered to 1/4" O.D.



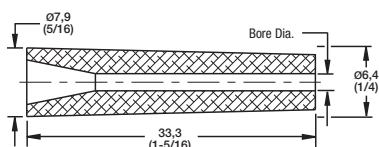
C3 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940299	B1214515	C3-1-1/2	2,4	3/32	22,2	7/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

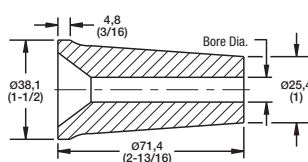
- 5/16" O.D., tapered to 1/4" O.D.



C3L Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940295	B1215510	C3L-1-1/4	2	5/64	33,3	1-5/16
2940293	B1215515	C3L-1-1/2	2,4	3/32	33,3	1-5/16

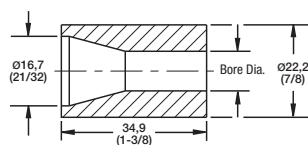
- 1-1/2" O.D. flange, tapered to 1" O.D.



CB Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940297	B1215060	CB-6	9,5	3/8	71,4	2-13/16
2940296	B1215080	CB-8	12,7	1/2	71,4	2-13/16

- 7/8" O.D. insert.



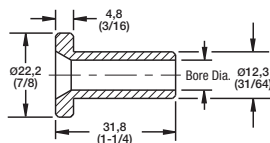
CL166 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940291	B1216640	CL166-4	6,4	1/4	34,9	1-3/8
2940290	B1216650	CL166-5	7,9	5/16	34,9	1-3/8
2940289	B1216660	CL166-6	9,5	3/8	34,9	1-3/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

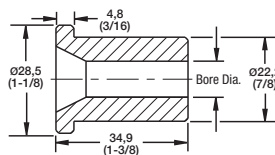
- 7/8" O.D. flange.



CL197 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940287	B1219740	CL197-4	6,4	1/4	31,8	1-1/4
2940286	B1219750	CL197-5	7,9	5/16	31,8	1-1/4

- 1-1/8" O.D. flange.



CL198 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940284	B1219840	CL198-4	6,4	1/4	34,9	1-3/8
2940283	B1219850	CL198-5	7,9	5/16	34,9	1-3/8
2940282	B1219860	CL198-6	9,5	3/8	34,9	1-3/8
2940281	B1219870	CL198-7	11,1	7/16	34,9	1-3/8
2940280	B1219880	CL198-8	12,7	1/2	34,9	1-3/8

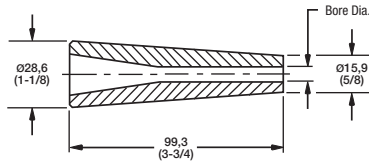
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide

Tungsten carbide nozzles offer the greatest resistance to impact or flexing.

Dimensions below are shown in millimeters and (inches).

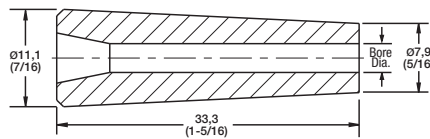
- 1-1/8" O.D., tapered to 5/8" O.D.



TC1 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2958558	B1713020	TC1-2	3,2	1/8	95,3	3-3/4
2958557	B1713030	TC1-3	4,8	3/16	95,3	3-3/4
2958556	B1713040	TC1-4	6,4	1/4	95,3	3-3/4
3155642	B1713050	TC1-5	7,9	5/16	95,3	3-3/4
3786713	B1713060	TC1-6	9,5	3/8	95,3	3-3/4

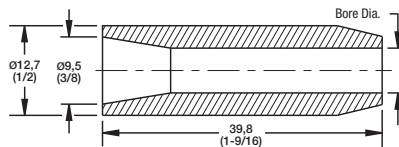
- 7/16" O.D., tapered to 5/16" O.D.



TL2 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939847	B1730010	TL2-05	1,57	1/16	33,3	1-5/16
2939846	B1730011	TL2-1	2,4	3/32	33,3	1-5/16
2939845	B1730012	TL2-2	3,4	1/8	33,3	1-5/16

- 1/2" O.D. insert.



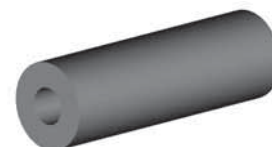
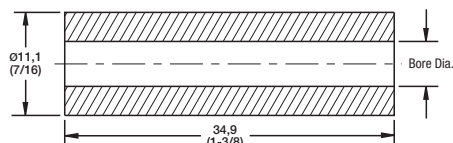
TL016-4 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939823	B1731621	TL016-2	3,4	1/8	39,8	1-9/16
2939822	B1731631	TL016-3	4,8	3/16	39,8	1-9/16
2939821	B1731641	TL016-4	6,4	1/4	39,8	1-9/16

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

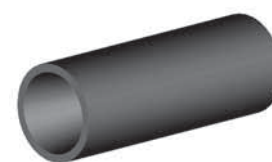
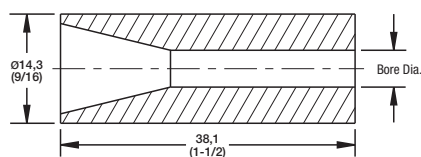
- Air jet insert.



■ TL100 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939844	B1730021	TL100-2	3,4	1/8	34,9	1-3/8
2939843	B1730031	TL100-3	4,8	3/16	34,9	1-3/8
2939842	B1730041	TL100-4	6,4	1/4	34,9	1-3/8

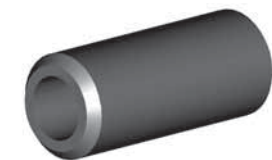
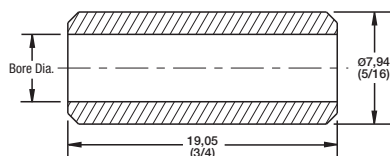
- 9/16" O.D. insert.



■ TL104 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939910	B1710431	TL104-3	4,8	3/16	38,1	1-1/2
2939837	B1730441	TL104-4	6,4	1/4	38,1	1-1/2
2939909	B1710451	TL104-5	7,9	5/16	38,1	1-1/2

- 5/16" O.D. air jet insert.



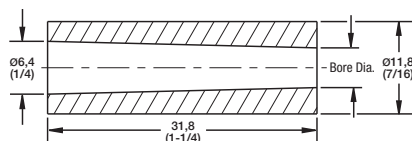
■ TL107 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939827	B1730721	TL107-2	3,2	1/8	19,1	3/4
2939826	B1730725	TL107-2-1/2	3,95	5/32	19,1	3/4
2939825	B1730731	TL107-3	4,8	3/16	19,1	3/4
2939824	B1730741	TL107-4	6,4	1/4	19,1	3/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

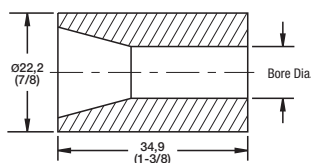
- 7/16" O.D., tapered I.D. air jet insert.



■ TL117 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939819	B1731721	TL117-2	3,4	1/8	31,8	1-1/4
2939818	B1731731	TL117-3	4,8	3/16	31,8	1-1/4

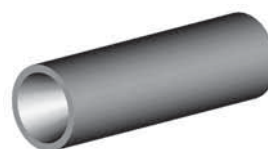
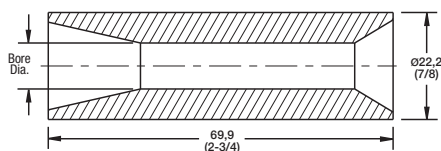
- 7/8" O.D. insert.



■ TL166 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3398654	B1736631	TL166-3	4,8	3/16	34,9	1-3/8
2939816	B1736641	TL166-4	6,4	1/4	34,9	1-3/8
2939815	B1736651	TL166-5	8,0	5/16	34,9	1-3/8
2939814	B1736661	TL166-6	9,5	3/8	34,9	1-3/8
2939813	B1736671	TL166-7	11,1	7/16	34,9	1-3/8
2939812	B1736681	TL166-8	12,7	1/2	34,9	1-3/8

- 7/8" O.D. insert.



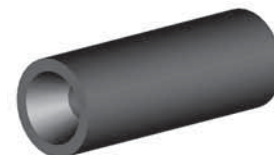
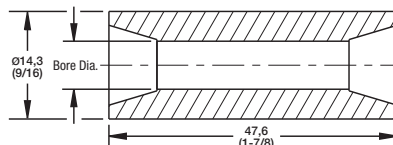
■ TL170 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939866	B1717061	TL170-6	9,5	3/8	69,9	2-3/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

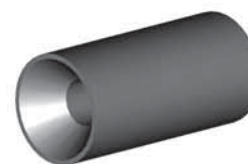
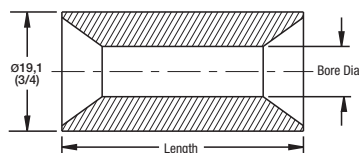
- 9/16" O.D. insert.



■ TL171 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939811	B1737141	TL171-4	6,4	1/4	47,6	1-7/8

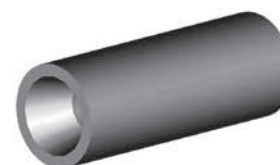
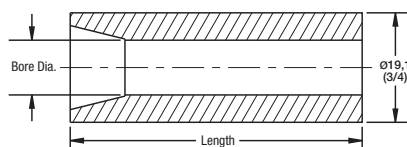
- 3/4" O.D. wide spray insert.



■ TL172 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939810	B1737251	TL172-5	7,9	5/16	38,1	1-1/2
2939809	B1737271	TL172-7	11,1	7/16	47,6	1-7/8

- 3/4" O.D. insert.



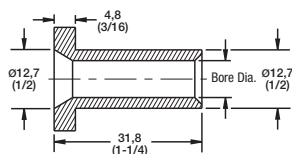
■ TL175 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939808	B1737541	TL175-4	6,4	1/4	50,8	2
2939807	B1737551	TL175-5	7,9	5/16	50,8	2
2939806	B1737561	TL175-6	9,5	3/8	50,8	2
2939805	B1737582	TL175-8	12,7	1/2	44,5	1-3/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

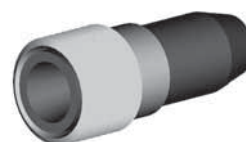
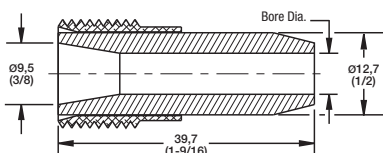
- 7/8" flange insert.



TL197 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939863	B1719741	TL197-4	6,4	1/4	31,8	1-1/4
2939862	B1719751	TL197-5	7,9	5/16	31,8	1-1/4

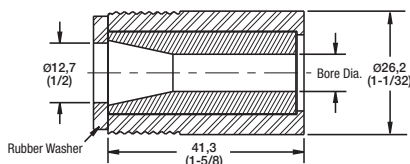
- Thread style: 3/8 – 18 N.P.S.M.
- Brass threads.



T016 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939556	B1911640	T016-4	6,4	1/4	39,7	1-9/16

- Thread style: 3/4 – 14 N.P.S.M.
- Steel jacket.
- Steel threads.



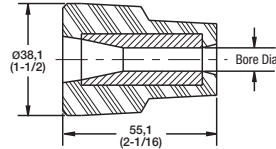
T106 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939582	B1910610	T106-1	1,6	1/16	41,3	1-5/8
2939580	B1910615	T106-1-1/2	2,4	3/32	41,3	1-5/8
2939579	B1910620	T106-2	3,4	1/8	41,3	1-5/8
2939577	B1910630	T106-3	4,8	3/16	41,3	1-5/8
2939575	B1910640	T106-4	6,4	1/4	41,3	1-5/8
2939573	B1910650	T106-5	7,9	5/16	41,3	1-5/8
2939571	B1910660	T106-6	9,5	3/8	41,3	1-5/8
2939567	B1910670	T106-7	11,1	7/16	41,3	1-5/8
2939566	B1910680	T106-8	12,7	1/2	41,3	1-5/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

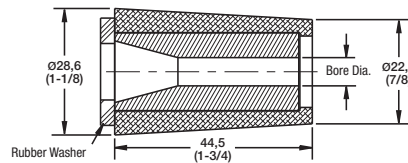
- Flanged polyurethane jacket.



■ T106-FAP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939410	B2010620	T106-2FAP	3,2	1/8	55	2-1/16
2939409	B2010630	T106-3FAP	4,8	3/16	55	2-1/16
2939408	B2010640	T106-4FAP	6,4	1/4	55	2-1/16
2939407	B2010650	T106-5FAP	7,9	5/16	55	2-1/16

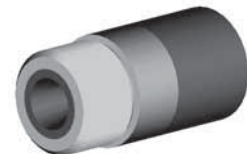
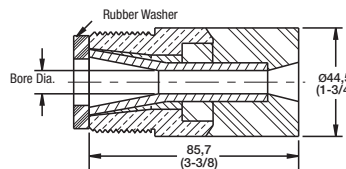
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Aluminum jacket.



■ T109 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939564	B1910910	T109-1	1,6	1/16	44,5	1-3/4
2939563	B1910915	T109-1-1/2	2,4	3/32	44,5	1-3/4
2939562	B1910920	T109-2	3,2	1/8	44,5	1-3/4
2939561	B1910930	T109-3	4,8	3/16	44,5	1-3/4
2939560	B1910940	T109-4	6,4	1/4	44,5	1-3/4
2939559	B1910950	T109-5	7,9	5/16	44,5	1-3/4
2939558	B1910960	T109-6	9,5	3/8	44,5	1-3/4

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Brass threads.



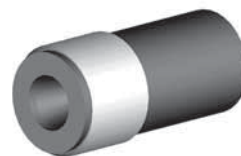
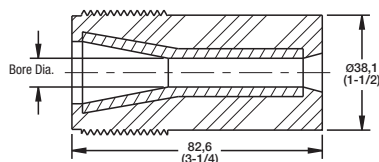
■ T122-P Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939281	B2082230	T122-3P	4,8	3/16	85,7	3-3/8
2939279	B2082240	T122-4P	6,4	1/4	85,7	3-3/8
2939277	B2082250	T122-5P	7,9	5/16	85,7	3-3/8
2939275	B2082260	T122-6P	9,5	3/8	85,7	3-3/8
2939273	B2082270	T122-7P	11,1	7/16	85,7	3-3/8
2939271	B2082280	T122-8P	12,7	1/2	85,7	3-3/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

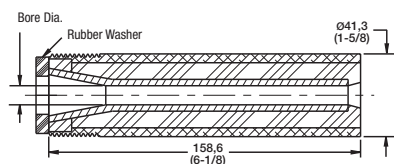
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



■ T122-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939280	B2082233	T122-3AP	4,8	3/16	82,6	3-1/4
2939278	B2082243	T122-4AP	6,4	1/4	82,6	3-1/4
2939276	B2082253	T122-5AP	7,9	5/16	82,6	3-1/4
2939274	B2082263	T122-6AP	9,5	3/8	82,6	3-1/4
2939272	B2082273	T122-7AP	11,1	7/16	82,6	3-1/4
2939270	B2082283	T122-8AP	12,7	1/2	82,6	3-1/4

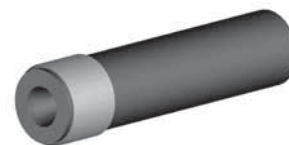
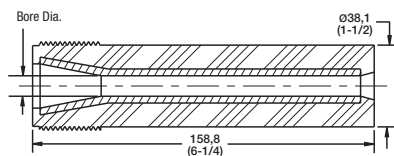
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.



■ T123 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939544	B1912330	T123-3	4,8	3/16	155,6	6-1/8
2939543	B1912340	T123-4	6,4	1/4	155,6	6-1/8
2939542	B1912350	T123-5	7,9	5/16	155,6	6-1/8
2939541	B1912360	T123-6	9,5	3/8	155,6	6-1/8
2939540	B1912370	T123-7	11,1	7/16	155,6	6-1/8
2939539	B1912380	T123-8	12,7	1/2	155,6	6-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



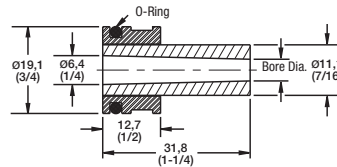
■ T123-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2964040	B2082333	T123-3AP	4,8	3/16	158,8	6-1/4
2939269	B2082343	T123-4AP	6,4	1/4	158,8	6-1/4
2939268	B2082353	T123-5AP	7,9	5/16	158,8	6-1/4
2939267	B2082363	T123-6AP	9,5	3/8	158,8	6-1/4
2939266	B2082373	T123-7AP	11,1	7/16	158,8	6-1/4
2939265	B2082383	T123-8AP	12,7	1/2	158,8	6-1/4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

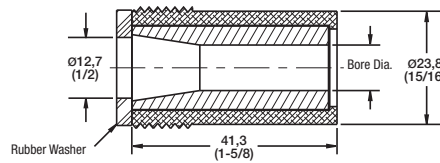
- 3/4" O.D., tapered I.D. air jet assembly.
- Steel, grooved jacket.
- Rubber O-ring.



■ T130 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939511	B1913020	T130-2	3,2	1/8	31,8	1-1/4
2939510	B1913030	T130-3	4,8	3/16	31,8	1-1/4
2939509	B1913040	T130-4	6,4	1/4	31,8	1-1/4

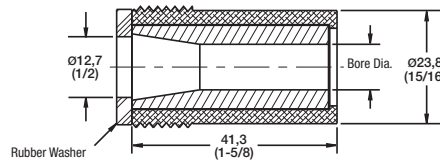
- Thread style: 1 – 14 N.F.
- Aluminum jacket.
- Aluminum threads.



■ T133 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939504	B1913330	T133-3	4,8	3/16	41,3	1-5/8
2939503	B1913340	T133-4	6,4	1/4	41,3	1-5/8
2939502	B1913350	T133-5	7,9	5/16	41,3	1-5/8
2939501	B1913360	T133-6	9,5	3/8	41,3	1-5/8
2939500	B1913370	T133-7	11,1	7/16	41,3	1-5/8
2939499	B1913380	T133-8	12,7	1/2	41,3	1-5/8

- Thread style: 1 – 14 N.F.
- Polyurethane jacket.
- Polyurethane threads.

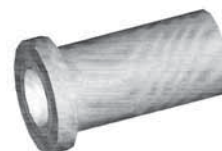
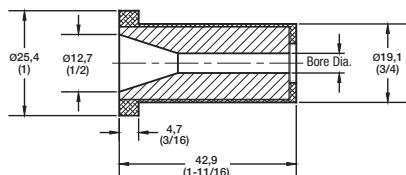


■ T133-AP Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
5180672	B2013333	T133-3AP	4,8	3/16	41,3	1-5/8
5180673	B2013343	T133-4AP	6,4	1/4	41,3	1-5/8
2939405	B2013353	T133-5AP	7,9	5/16	41,3	1-5/8
2939404	B2013363	T133-6AP	9,5	3/8	41,3	1-5/8
*	B2013373	T133-7AP	11,1	7/16	41,3	1-5/8
2939403	B2013383	T133-8AP	12,7	1/2	41,3	1-5/8

*Contact your Kennametal representative or customer service for quote.

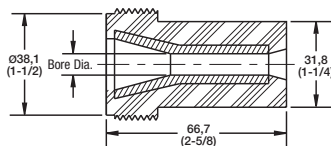
- 1" O.D. flange.
- Aluminum jacket.



■ T134 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3775674	B1913410	T134-1	1,6	1/16	42,9	1-11/16
4033336	B1913420	T134-2	3,2	1/8	42,9	1-11/16
2939498	B1913430	T134-3	4,8	3/16	42,9	1-11/16
4033340	B1913440	T134-4	6,4	1/4	42,9	1-11/16
4033341	B1913450	T134-5	7,9	5/16	42,9	1-11/16
4033342	B1913460	T134-6	9,5	3/8	42,9	1-11/16

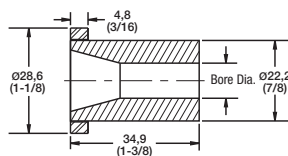
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



■ T137 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939402	B2013730	T137-3AP	4,8	3/16	66,7	2-5/8
2939401	B2013740	T137-4AP	6,4	1/4	66,7	2-5/8
2939400	B2013750	T137-5AP	7,9	5/16	66,7	2-5/8
2939399	B2013760	T137-6AP	9,5	3/8	66,7	2-5/8
2939397	B2013780	T137-8AP	12,7	1/2	66,7	2-5/8

- 1-1/8" flanged insert.



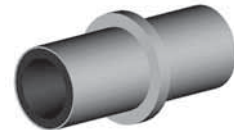
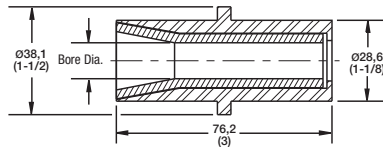
■ T198 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939456	B1919840	T198-4	6,4	1/4	34,9	1-3/8
2939455	B1919850	T198-5	7,9	5/16	34,9	1-3/8
2939454	B1919860	T198-6	9,5	3/8	34,9	1-3/8
2939453	B1919870	T198-7	11,1	7/16	34,9	1-3/8
2939452	B1919880	T198-8	12,7	1/2	34,9	1-3/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

- Steel jacket.
- 1-1/2" mid-flange insert.



T222 Series

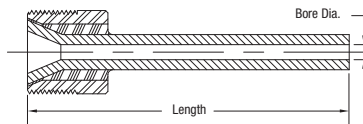
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939447	B1922260	T222-6	9,5	3/8	76,2	3
3327934	B1922280	T222-8	12,7	1/2	76,2	3

Hozzle Nozzles

Hozzle nozzles are excellent for aerospace, aviation and automotive component-related applications where minimal access or clearance are an issue. **We have the capability to manufacture other hozzle nozzle designs. Please contact us to discuss your requirements.**

Dimensions below are shown in millimeters and (inches).

- Thread style: 3/4 – 14 N.S.P.M.
- 7/16" O.D. insert.
- Steel threads.



Hozzle Nozzle

order number	catalog number	bore diameter		length	
		mm	in	mm	in
5115972	B2728844	4,8	3/16	101,6	4
3994486	BB29271A	4,8	3/16	152,4	6
3025048	B1900002	4,8	3/16	254	10

We have the capability to manufacture other hozzle nozzle sizes. Please contact us to discuss your requirements.

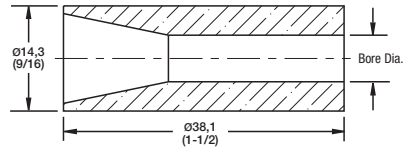
*Contact your Kennametal representative or customer service for quote.

Boron Carbide Nozzles

Boron carbide is ideal for aggressive abrasives such as aluminum oxide and selected mineral aggregates when rough handling can be avoided.

Dimensions below are shown in millimeters and (inches).

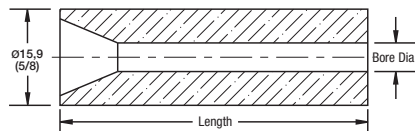
- 9/16" O.D. insert.



60 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940350	B1162040	B4S-60	6,4	1/4	38,1	1-1/2

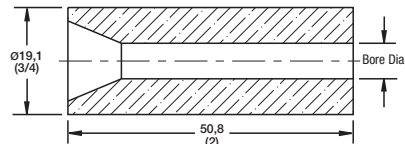
- 5/8" O.D. insert.



62 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940347	B1162820	B2L-62	3,4	1/8	50,8	2
2940346	B1162825	B2-1/2L-62	4	5/32	50,8	2
2940345	B1162830	B3L-62	4,8	3/16	50,8	2
2940344	B1162840	B4L-62	6,4	1/4	50,8	2
2940343	B1162850	B5L-62	7,9	5/16	50,8	2
2940348	B1162450	B5M-62	7,9	5/16	38,1	1-1/2

- 3/4" O.D. insert.



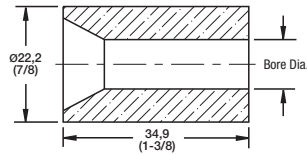
75 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940341	B1175820	B2L-75	3,4	1/8	50,8	2
2940340	B1175830	B3L-75	4,8	3/16	50,8	2
2940339	B1175835	B3-1/2L-75	5,6	7/32	50,8	2
2940338	B1175840	B4L-75	6,4	1/4	50,8	2
2940337	B1175850	B5L-75	7,9	5/16	50,8	2
2940336	B1175860	B6L-75	9,5	3/8	50,8	2

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

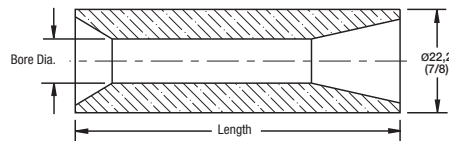
- 7/8" O.D. insert.



87 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940327	B1187340	B4S-87	6,4	1/4	34,9	1-3/8
2940325	B1187350	B5S-87	7,9	5/16	34,9	1-3/8
2940324	B1187360	B6S-87	9,5	3/8	34,9	1-3/8
2940323	B1187370	B7S-87	11,1	7/16	34,9	1-3/8
2940322	B1187380	B8S-87	12,7	1/2	34,9	1-3/8

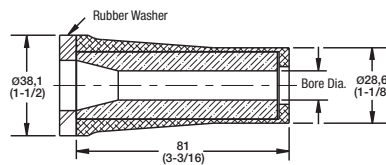
- 7/8" O.D. wide spray gun insert.



BVI Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3059579	B1127040	BVI-4	6,4	1/4	71,4	2-13/16
2940354	B1127050	BVI-5	7,9	5/16	71,4	2-13/16
2940353	B1127060	BVI-6	9,5	3/8	69,9	2-3/4
2940352	B1127070	BVI-7	11,1	7/16	71,4	2-13/16
2940351	B1127080	BVI-8	12,7	1/2	71,4	2-13/16

- Flange tapered aluminum jacket.
- 1-1/2" O.D., tapered to 1-1/8" O.D.



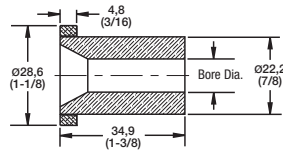
SB Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940277	B1415060	SB-6	9,5	3/8	81	3-3/16
3680995	B1415070	SB-7	11,1	7/16	81	3-3/16
2940276	B1415080	SB-8	12,7	1/2	81	3-3/16

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

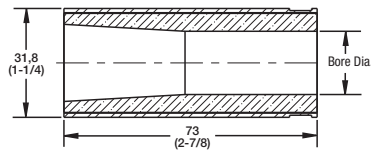
- 1-1/8" flange.



S198 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940275	B1419840	S198-4	6,4	1/4	34,9	1-3/8
2940274	B1419850	S198-5	7,9	5/16	34,9	1-3/8
2940273	B1419860	S198-6	9,5	3/8	34,9	1-3/8
2940272	B1419870	S198-7	11,1	7/16	34,9	1-3/8
5018290	B1419880	S198-8	12,7	1/2	34,9	1-3/8

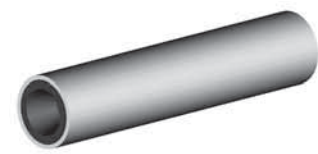
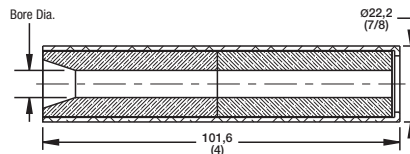
- Vacuum blast retainer.
- Steel jacket with groove.



S258 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940271	B1425812	S258-12	18,3	23/32	73	2-7/8

- Aluminum jacket.



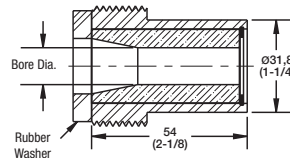
S261 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940269	B1426160	S261-6	9,5	3/8	101,6	4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

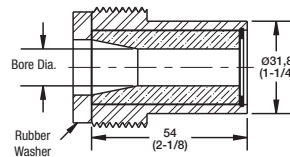
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Steel jacket.
- Steel threads.



■ E Series • Short

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940257	B1503022	B2S2-E	3,4	1/8	54	2-1/8
2940255	B1503032	B3S2-E	4,8	3/16	54	2-1/8
2940253	B1503042	B4S2-E	6,4	1/4	54	2-1/8
2940250	B1503052	B5S2-E	7,9	5/16	54	2-1/8
2940247	B1503062	B6S2-E	9,5	3/8	54	2-1/8
2940243	B1503082	B8S2-E	12,7	1/2	54	2-1/8

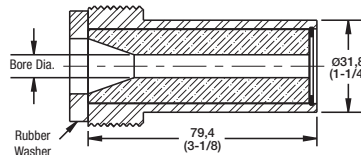
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Polyurethane jacket.
- Polyurethane threads.



■ E-AP Series • Short

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
*	B1503022AP	B2S2-EAP	3,4	1/8	54	2-1/8
*	B1503032AP	B3S2-EAP	4,8	3/16	54	2-1/8
3859009	B1503042AP	B4S2-EAP	6,4	1/4	54	2-1/8
3597011	B1503052AP	B5S2-EAP	7,9	5/16	54	2-1/8
*	B1503062AP	B6S2-EAP	9,5	3/8	54	2-1/8
4155292	B1503082AP	B8S2-EAP	12,7	1/2	54	2-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Steel jacket.
- Steel threads.



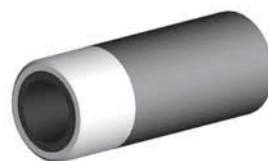
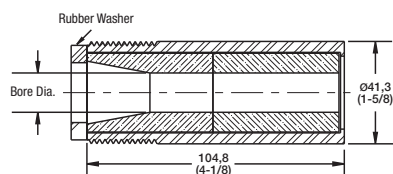
■ E Series • Medium

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940256	B1503023	B2M3-E	3,4	1/8	79,4	3-1/8
2940254	B1503033	B3M3-E	4,8	3/16	79,4	3-1/8
2940252	B1503043	B4M3-E	6,4	1/4	79,4	3-1/8
2940249	B1503053	B5M3-E	7,9	5/16	79,4	3-1/8
2940246	B1503063	B6M3-E	9,5	3/8	79,4	3-1/8
2940242	B1503083	B8M3-E	12,7	1/2	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

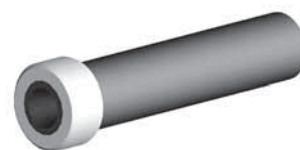
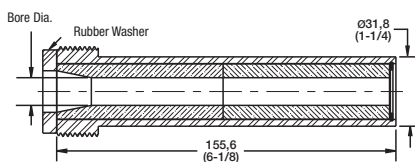
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Steel jacket.
- Steel threads.



■ E Series • 4-1/8 Medium

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940240	B1503104	B10M4-E	15,9	5/8	104,8	4-1/8

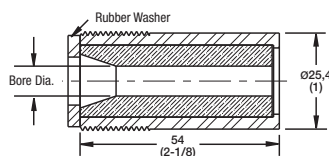
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Steel jacket.
- Steel threads.



■ E Series • Long

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940251	B1503046	B4L6-E	6,4	1/4	155,6	6-1/8
2940248	B1503056	B5L6-E	7,9	5/16	155,6	6-1/8
2940245	B1503066	B6L6-E	9,5	3/8	155,6	6-1/8
2940244	B1503076	B7L6-E	11,1	7/16	155,6	6-1/8
2940241	B1503086	B8L6-E	12,7	1/2	155,6	6-1/8

- Thread style: 3/4 – 14 N.P.S.M.
- Steel jacket.
- Steel threads.



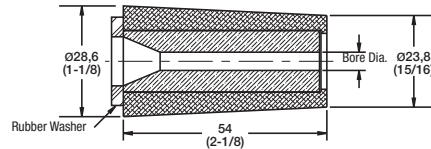
■ G Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940228	B1505022	B2S2-G	3,4	1/8	54	2-1/8
2940227	B1505032	B3S2-G	4,8	3/16	54	2-1/8
2940225	B1505042	B4S2-G	6,4	1/4	54	2-1/8
2940223	B1505052	B5S2-G	7,9	5/16	54	2-1/8
2940222	B1505062	B6S2-G	9,5	3/8	54	2-1/8
2940221	B1505082	B8S2-G	12,7	1/2	54	2-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

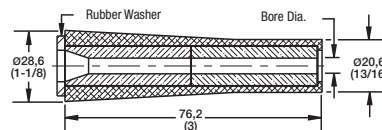
- Aluminum jacket.



H Series • Short

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940215	B1506022	B2S2-H	3,4	1/8	54	2-1/8
2940214	B15060221	B2-1/2S2-H	4	5/32	54	2-1/8
2940209	B1506032	B3S2-H	4,8	3/16	54	2-1/8
2940204	B1506042	B4S2-H	6,4	1/4	54	2-1/8
2940200	B1506050	B5S2-H	7,9	5/16	54	2-1/8

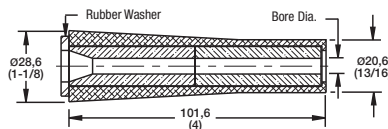
- Aluminum jacket.



H Series • Medium

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940213	B1506023	B2M3-H	3,4	1/8	76,2	3
2940212	B15060231	B2-1/2M3-H	4	5/32	76,2	3
2940208	B1506033	B3M3-H	4,8	3/16	76,2	3
2940203	B1506043	B4M3-H	6,4	1/4	76,2	3

- Aluminum jacket.



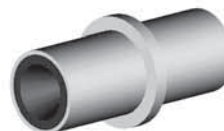
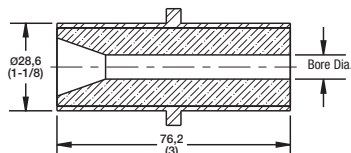
H Series • Long

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940211	B1506024	B2L4-H	3,4	1/8	101,6	4
2940210	B15060241	B2-1/2L4-H	4	5/32	101,6	4
2940206	B1506034	B3L4-H	4,8	3/16	101,6	4
2940202	B1506044	B4L4-H	6,4	1/4	101,6	4

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

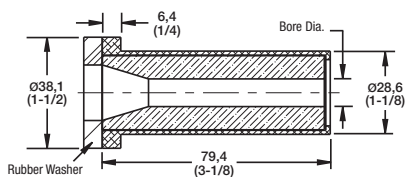
- 1-1/2" middle flange.
- Steel jacket.



I Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
*	B1511023	B2M3-I	3,4	1/8	76,2	3
3848285	B1511033	B3M3-I	4,8	3/16	76,2	3
2954332	B1511043	B4M3-I	6,4	1/4	76,2	3
2940152	B1511053	B5M3-I	7,9	5/16	76,2	3
2940151	B1511063	B6M3-I	9,5	3/8	76,2	3
*	B1511073	B7M3-I	11,1	7/16	76,2	3
2940149	B1511083	B8M3-I	12,7	1/2	76,2	3

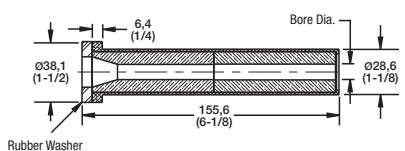
- Flanged aluminum jacket.



J Series • Medium

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940194	B1507033	B3M3-J	4,8	3/16	79,4	3-1/8
2940193	B1507043	B4M3-J	6,4	1/4	79,4	3-1/8
2954333	B1507053	B5M3-J	7,9	5/16	79,4	3-1/8
2940190	B1507063	B6M3-J	9,5	3/8	79,4	3-1/8
2940188	B1507083	B8M3-J	12,7	1/2	79,4	3-1/8

- Flanged aluminum jacket.



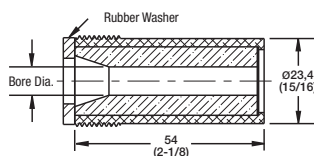
J Series • Long

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
*	B1507046	B4L6-J	6,4	1/4	155,6	6-1/8
2940192	B1507056	B5L6-J	7,9	5/16	155,6	6-1/8
2940189	B1507066	B6L6-J	9,5	3/8	155,6	6-1/8
2940187	B1507086	B8L6-J	12,7	1/2	155,6	6-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

- Thread style: 1 – 14 N.F.
- Aluminum jacket.
- Aluminum threads.



■ L Series

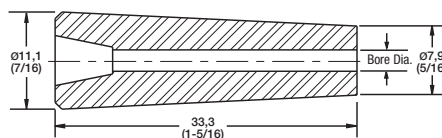
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940183	B1509022	B2S2-L	3,4	1/8	54	2-1/8
2940182	B1509032	B3S2-L	4,8	3/16	54	2-1/8
2940181	B1509042	B4S2-L	6,4	1/4	54	2-1/8
2940180	B1509052	B5S2-L	7,9	5/16	54	2-1/8
2940179	B1509062	B6S2-L	9,5	3/8	54	2-1/8
2940177	B1509082	B8S2-L	12,7	1/2	54	2-1/8

ROCTEC®

ROCTEC® composite carbide nozzles provide even longer life than boron carbide nozzles. They are ideal for applications using aggressive abrasive like aluminum oxide and silicon carbide.

Dimensions below are shown in millimeters and (inches).

- 7/16" O.D., tapered to 5/16" O.D.



■ RL2 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3111103	B1930010	RL2-0,5	1,57	1/16	33,3	1-5/16
2939427	B1930011	RL2-1	2,4	3/32	33,3	1-5/16
2939426	B1930012	RL2-2	3,4	1/8	33,3	1-5/16

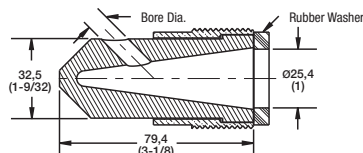
*Contact your Kennametal representative or customer service for quote.

Tungsten Carbide

These nozzles are excellent for getting inside tight places like bridge lattice, behind flanges or inside pipe. Many operators waste abrasive and time waiting for ricochet to get the job done. No nozzle tool chest should be without an angle nozzle. These nozzles are available in tungsten carbide, boron carbide, and ROCTEC® featuring long life blast outputs between 0° and 125° relative to the input openings. Available with single, double, triple, or quadruple outlets. **We have the capability to manufacture additional angle nozzle designs. Please contact us to discuss your requirements.**

Dimensions below are shown in millimeters and (inches).

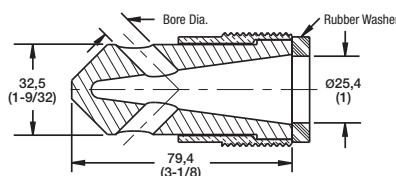
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



■ T045 Series • Single Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939649	B1904530	T045-3	4,8	3/16	79,4	3-1/8
2939641	B1904540	T045-4	6,4	1/4	79,4	3-1/8
2939632	B1904550	T045-5	7,9	5/16	79,4	3-1/8
2939623	B1904560	T045-6	9,5	3/8	79,4	3-1/8
3576844	B1904570	T045-7	11,1	7/16	79,4	3-1/8
2939614	B1904580	T045-8	12,7	1/2	79,4	3-1/8

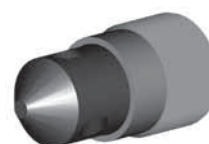
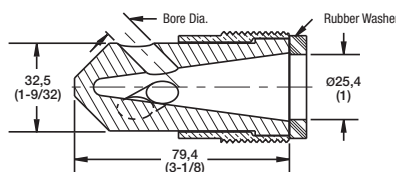
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



■ T045 Series • Double Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939647	B1904532	T045-32	4,8	3/16	79,4	3-1/8
2939639	B1904542	T045-42	6,4	1/4	79,4	3-1/8
2939630	B1904552	T045-52	7,9	5/16	79,4	3-1/8
2939621	B1904562	T045-62	9,5	3/8	79,4	3-1/8
2939613	B1904582	T045-82	12,7	1/2	79,4	3-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



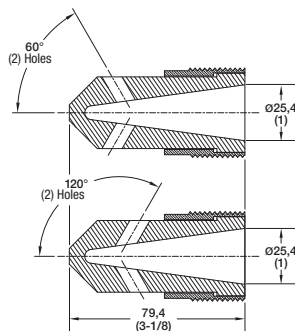
■ T045 Series • Triple Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939646	B1904533	T045-33	4,8	3/16	79,4	3-1/8
2939638	B1904543	T045-43	6,4	1/4	79,4	3-1/8
2939629	B1904553	T045-53	7,9	5/16	79,4	3-1/8
2939620	B1904563	T045-63	9,5	3/8	79,4	3-1/8
2939612	B1904583	T045-83	12,7	1/2	79,4	3-1/8

**Contact your Kennametal representative or customer service for quote.*

Dimensions below are shown in millimeters and (inches).

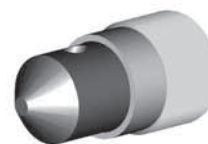
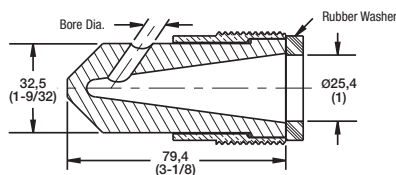
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.
- Four outlets, two at 60° and two at 120°



■ T045 Series • Quad Outlet 60°/120°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939607	B1904599	T045-2.5 60/120	4	5/32	79,4	3-1/8
2939633	B1904549	T045-4 60/120	6,4	1/4	79,4	3-1/8
3660505	B1904559	T045-5 60/120	7,9	5/16	79,4	3-1/8
2939615	B1904569	T045-6 60/120	9,5	3/8	79,4	3-1/8

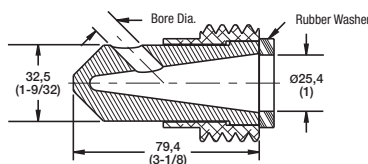
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.
- Single, double, or triple outlets.



■ T045 Series • Reverse Outlet 125°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939648	B1904530R	T045-3R	4,8	3/16	79,4	3-1/8
2939640	B1904540R	T045-4R	6,4	1/4	79,4	3-1/8
2939637	B1904543R	T045-43R	6,4 x 3	1/4 x 3	79,4	3-1/8
2939631	B1904553R	T045-53R	7,9 x 3	5/16 x 3	79,4	3-1/8
2939628	B1904560R	T045-6R	9,5	3/8	79,4	3-1/8
2939622	B1904580R	T045-8R	12,7	1/2	79,4	3-1/8

- Thread style: 50mm.
- Aluminum threads.



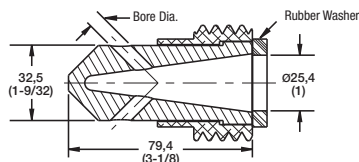
■ T045 50mm Contractor Series • Single Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3553884	B1904534	T045-350	4,8	3/16	79,4	3-1/8
2939636	B1904544	T045-450	6,4	1/4	79,4	3-1/8
2939627	B1904554	T045-550	7,9	5/16	79,4	3-1/8
2939619	B1904564	T045-650	9,5	3/8	79,4	3-1/8
3640404	B1904574	T045-750	11,1	7/16	79,4	3-1/8
2939611	B1904584	T045-850	12,7	1/2	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

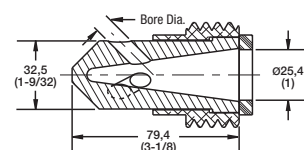
- Thread style: 50mm.
- Aluminum threads.



■ T045 50mm Contractor Series • Double Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
5048345	B1904535	T045-32-50mm	4,8	3/16	79,4	3-1/8
3046871	B1904545	T045-42-50mm	6,4	1/4	79,4	3-1/8
2939626	B1904555	T045-52-50mm	7,9	5/16	79,4	3-1/8
2939618	B1904565	T045-62-50mm	9,5	3/8	79,4	3-1/8
2954301	B1904585	T045-82-50mm	12,7	1/2	79,4	3-1/8

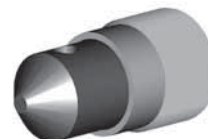
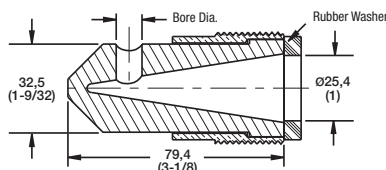
- Thread style: 50mm.
- Aluminum threads.



■ T045 50mm Contractor Series • Triple Outlet 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939644	B1904536	T045-33-50mm	4,8	3/16	79,4	3-1/8
2939635	B1904546	T045-43-50mm	6,4	1/4	79,4	3-1/8
2939625	B1904556	T045-53-50mm	7,9	5/16	79,4	3-1/8
2939617	B1904566	T045-63-50mm	9,5	3/8	79,4	3-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



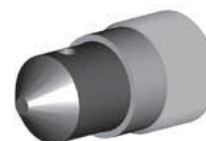
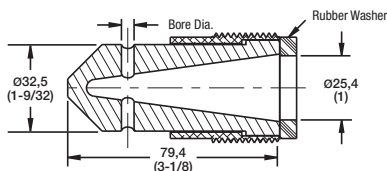
■ T090 Series • Single Outlet 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939605	B1909030	T090-3	4,8	3/16	79,4	3-1/8
2939603	B1909040	T090-4	6,4	1/4	79,4	3-1/8
2939598	B1909050	T090-5	7,9	5/16	79,4	3-1/8
2939594	B1909060	T090-6	9,5	3/8	79,4	3-1/8
4120022	B1909070	T090-7	11,1	7/16	79,4	3-1/8
2939589	B1909080	T090-8	12,7	1/2	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

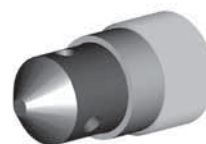
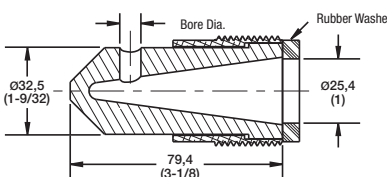
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



■ T090 Series • Double Outlet 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3088735	B1909032	T090-32	4,8	3/16	79,4	3-1/8
2939602	B1909042	T090-42	6,4	1/4	79,4	3-1/8
2939597	B1909052	T090-52	7,9	5/16	79,4	3-1/8
2939593	B1909062	T090-62	9,5	3/8	79,4	3-1/8
2939588	B1909082	T090-82	12,7	1/2	79,4	3-1/8

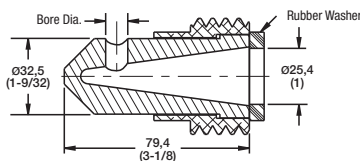
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.



■ T090 Series • Triple Outlet 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939604	B1909033	T090-33	4,8	3/16	79,4	3-1/8
2939601	B1909043	T090-43	6,4	1/4	79,4	3-1/8
2939596	B1909053	T090-53	7,9	5/16	79,4	3-1/8
2939592	B1909063	T090-63	9,5	3/8	79,4	3-1/8
2939583	B1909083	T090-83	12,7	1/2	79,4	3-1/8

- Thread style: 50mm.
- Aluminum threads.



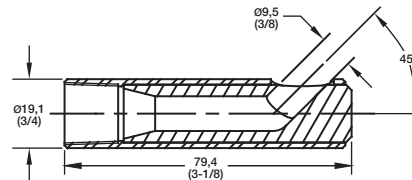
■ T090 50mm Contractor Series • Single Outlet 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3735700	B1909034	T090-350	4,8	3/16	79,4	3-1/8
2939600	B1909044	T090-450	6,4	1/4	79,4	3-1/8
2939595	B1909054	T090-550	7,9	5/16	79,4	3-1/8
2939591	B1909064	T090-650	9,5	3/8	79,4	3-1/8
2939586	B1909084	T090-850	12,7	1/2	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

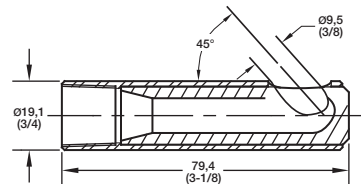
- Thread style: Female 3/8 – 18 N.P.T.
- Steel jacket.
- Steel threads.



T144 Series • 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939495	B1914460	T144-6	9,5	3/8	79,4	3-1/8
2939493	B1914462	T144-62	9,5 x 2	3/8 x 2	79,4	3-1/8

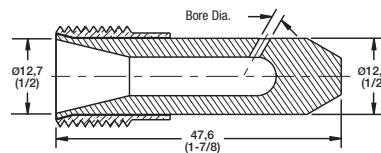
- Thread style: Female 3/8 – 18 N.P.T.
- Steel jacket.
- Steel threads.



T144 Series • Reverse 135°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939494	B1914460R	T144-6R	9,5	3/8	79,4	3-1/8

- Thread style: 3/8 – 18 N.P.S.M.
- Brass threads.
- Single, double, triple, or quad outlets.



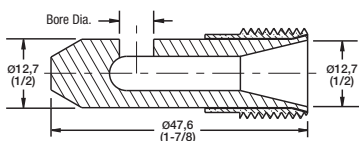
T145 Series • 60°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939492	B1914520	T145-2	3,2	1/8	47,6	1-7/8
2939491	B1914522	T145-22	3,2 x 2	1/8 x 2	47,6	1-7/8
2939490	B1914523	T145-23	3,2 x 3	1/8 x 3	47,6	1-7/8
2939489	B1914524	T145-24	3,2 x 4	1/8 x 4	47,6	1-7/8
2939486	B1914530	T145-3	4,8	3/16	47,6	1-7/8
2939485	B1914540	T145-4	6,4	1/4	47,6	1-7/8
2939484	B1914542	T145-42	6,4 x 2	1/4 x 2	47,6	1-7/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

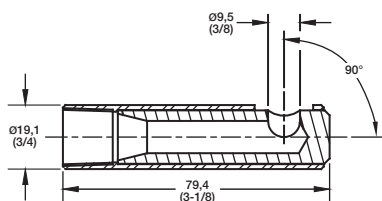
- Thread style: 3/8 – 18 N.P.S.M.
- Brass threads.
- Single, triple, or quad outlets.



■ T190 Series • 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939463	B1919020	T190-2	3,2	1/8	47,6	1-7/8
2939462	B1919023	T190-23	3,2 x 3	1/8 x 3	47,6	1-7/8
2939461	B1919024	T190-24	3,2 x 4	1/8 x 4	47,6	1-7/8
2939460	B1919030	T190-3	4,8	3/16	47,6	1-7/8
2939459	B1919040	T190-4	6,4	1/4	47,6	1-7/8

- Thread style: Female 3/8 – 18 N.P.T.
- Steel jacket.
- Steel threads.



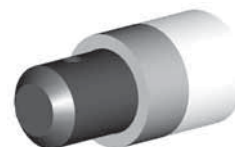
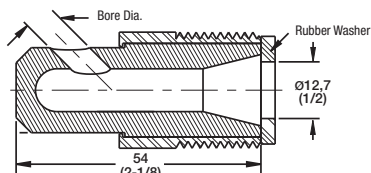
■ T194 Series • 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939457	B1919460	T194-6	9,5	3/8	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

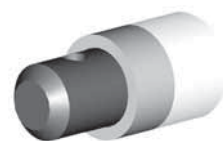
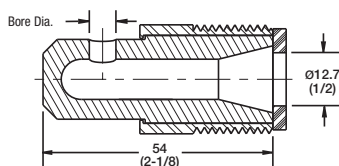
- Thread style: 3/4 – 14 N.P.S.M.
- Steel threads.
- Single, double, or triple outlets.



■ T245 Series • 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939446	B1924521	T245-2	3,2	1/8	54	2-1/8
2939445	B1924523	T245-23	3,2 x 3	1/8 x 3	54	2-1/8
2939443	B1924531	T245-3	4,8	3/16	54	2-1/8
2575727	B1924533	T245-33	4,8 x 3	3/16 x 3	54	2-1/8
2939442	B1924541	T245-4	6,4	1/4	54	2-1/8
2575728	B1924542	T245-42	6,4 x 2	1/4 x 2	54	2-1/8
2939439	B1924551	T245-5	7,9	5/16	54	2-1/8
2939438	B1924561	T245-6	9,5	3/8	54	2-1/8
5199639	B1924562	T245-62	9,5 x 2	3/8 x 2	54	2-1/8

- Thread style: 3/4 – 14 N.P.S.M.
- Steel threads.
- Single, double, triple, or quad outlets.



■ T290 Series • 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939437	B1929021	T290-2	3,2	1/8	54	2-1/8
2939436	B1929022	T290-22	3,2 x 2	1/8 x 2	54	2-1/8
2939435	B1929031	T290-3	4,8	3/16	54	2-1/8
2939434	B1929033	T290-33	4,8 x 3	3/16 x 3	54	2-1/8
2939433	B1929041	T290-4	6,4	1/4	54	2-1/8
2939431	B1929042	T290-42	6,4 x 2	1/4 x 2	54	2-1/8
3879301	B1929043	T290-43	6,4 x 3	1/4 x 3	54	2-1/8
2939430	B1929044	T290-44	6,4 x 4	1/4 x 4	54	2-1/8
2939429	B1929051	T290-5	7,9	5/16	54	2-1/8
2939428	B1929061	T290-6	9,5	3/8	54	2-1/8

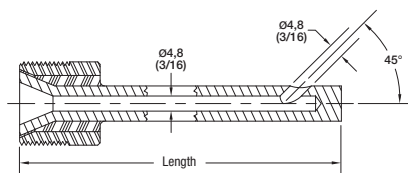
*Contact your Kennametal representative or customer service for quote.

Hozzle Angle Nozzles

Hozzle nozzles are excellent for aerospace, aviation and automotive component-related applications where minimal access or clearance are an issue. **We have the capability to manufacture other hozzle nozzle designs. Please contact us to discuss your requirements.**

Dimensions below are shown in millimeters and (inches).

- Thread style: 3/4 – 14 N.P.S.M.
- 7/16" O.D. insert.
- Steel threads.

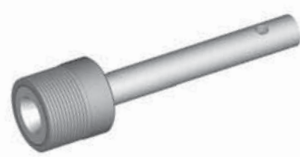
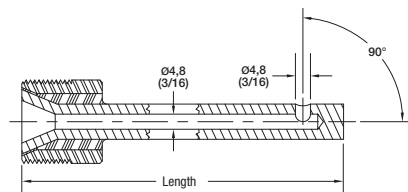


■ Hozzle Nozzle Series • 45°

order number	catalog number	Bore Diameter		Length	
		mm	in	mm	in
4063486	B2008477	4,8	3/16	101,6	4
4063487	B2008479	4,8	3/16	152,4	6
2958531	B1900007	4,8	3/16	254	10

We have the capability to manufacture other hozzle nozzle sizes. Please contact us to discuss your requirements.

- Thread style: 3/4 – 14 N.P.S.M.
- 7/16" O.D. insert.
- Steel threads.

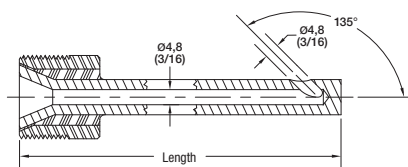


■ Hozzle Nozzle Series • 90°

order number	catalog number	Bore Diameter		Length	
		mm	in	mm	in
5115971	B2728840	4,8	3/16	101,6	4
5115973	B2728842	4,8	3/16	152,4	6
3056789	B1900003	4,8	3/16	254	10

We have the capability to manufacture other hozzle nozzle sizes. Please contact us to discuss your requirements.

- Thread style: 3/4 – 14 N.P.S.M.
- 7/16" O.D. insert.
- Steel threads.



■ Hozzle Nozzle Series • 135°

order number	catalog number	Bore Diameter		Length	
		mm	in	mm	in
5136723	B2748600	4,8	3/16	101,6	4
5136724	B2748602	4,8	3/16	152,4	6
5034182	B2005186	4,8	3/16	254	10

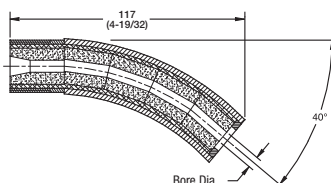
We have the capability to manufacture other hozzle nozzle sizes. Please contact us to discuss your requirements.

**Contact your Kennametal representative or customer service for quote.*

Boron Carbide

Dimensions below are shown in millimeters and (inches).

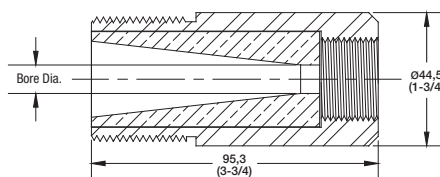
- Thread style: 3/4 – 14 N.P.S.M.
- Metal jacket.
- Metal threads.



■ 40° Banana Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2911312	B1502510	6mm Banana Nozzle	6	.236	117	4.6
2940259	B1502515	8mm Banana Nozzle	8	.315	117	4.6
2940258	B1502520	10mm Banana Nozzle	10	.374	117	4.6

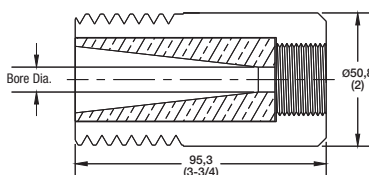
- Adapter: 1-1/4" – 3/4" N.P.S.M.
- Boron Carbide lined.



■ 1-1/4" to 3/4" Adapter

order number	catalog number	model number
2958539	B1502501	1502501

- Thread style: 50mm.
- Adapter: 50mm – 3/4" N.P.S.M.
- Boron Carbide lined.



■ 50mm to 3/4" Adapter

order number	catalog number	model number
3092894	B1502500	1502500

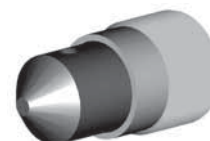
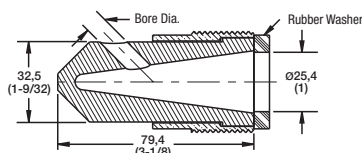
*Contact your Kennametal representative or customer service for quote.

ROCTEC®

These nozzles provide 15 to 25 times longer service life than standard tungsten carbide versions when used with aggressive abrasives like aluminum oxide or silicon carbide.

Dimensions below are shown in millimeters and (inches).

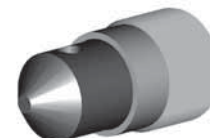
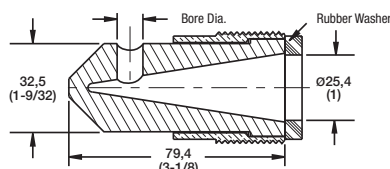
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.
- Single, double, or triple outlets.



R045 Series • 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
5299575	B19504530	R045-3	4,8	3/16	79,4	3-1/8
*	B19504532	R045-32	4,8 x 2	3/16 x 2	79,4	3-1/8
*	B19504533	R045-33	4,8 x 3	3/16 x 3	79,4	3-1/8
2939421	B19504540	R045-4	6,4	1/4	79,4	3-1/8
2938793	B19504542	R045-42	6,4 x 2	1/4 x 2	79,4	3-1/8
3758177	B19504543	R045-43	6,4 x 3	1/4 x 3	79,4	3-1/8
3863621	B19504550	R045-5	7,9	5/16	79,4	3-1/8
*	B19504552	R045-52	7,9 x 2	5/16 x 2	79,4	3-1/8
3642697	B19504553	R045-53	7,9 x 3	5/16 x 3	79,4	3-1/8
2939420	B19504560	R045-6	9,5	3/8	79,4	3-1/8
*	B19504562	R045-62	9,5 x 2	3/8 x 2	79,4	3-1/8
3642698	B19504563	R045-63	9,5 x 3	3/8 x 3	79,4	3-1/8
2938791	B19504580	R045-8	12,7	1/2	79,4	3-1/8

- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Brass threads.
- Single, double, or triple outlets.



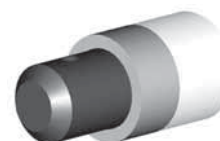
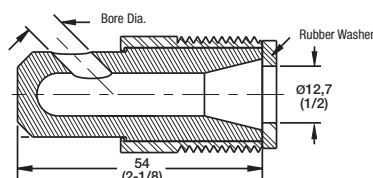
R090 Series • 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3960775	B19509030	R090-3	4,8	3/16	79,4	3-1/8
*	B19509032	R090-32	4,8 x 2	3/16 x 2	79,4	3-1/8
*	B19509033	R090-33	4,8 x 3	3/16 x 3	79,4	3-1/8
5026895	B19509040	R090-4	6,4	1/4	79,4	3-1/8
2939417	B19509042	R090-42	6,4 x 2	1/4 x 2	79,4	3-1/8
2939416	B19509043	R090-43	6,4 x 3	1/4 x 3	79,4	3-1/8
3951369	B19509050	R090-5	7,9	5/16	79,4	3-1/8
5402829	B19509052	R090-52	7,9 x 2	5/16 x 2	79,4	3-1/8
5402890	B19509053	R090-53	7,9 x 3	5/16 x 3	79,4	3-1/8
2939413	B19509060	R090-6	9,5	3/8	79,4	3-1/8
4119670	B19509062	R090-62	9,5 x 2	3/8 x 2	79,4	3-1/8
5068390	B19509063	R090-63	9,5 x 3	3/8 x 3	79,4	3-1/8
3596824	B19509080	R090-8	12,7	1/2	79,4	3-1/8

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

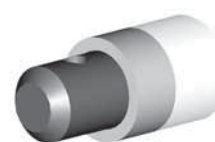
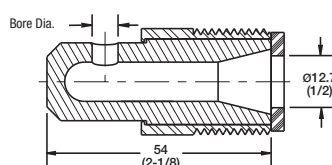
- Thread style: 3/4 – 14 N.P.S.M.
- Steel threads.
- Single, double, or triple outlets.



■ R245 Series • 45°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3387778	B19524530	R245-3	4,8	3/16	54	2-1/8
3898619	B19524532	R245-32	4,8 x 2	3/16 x 2	54	2-1/8
3387779	B19524533	R245-33	4,8 x 3	3/16 x 3	54	2-1/8
2938664	B19524540	R245-4	6,4	1/4	54	2-1/8
2938666	B19524542	R245-42	6,4 x 2	1/4 x 2	54	2-1/8
3396156	B19524550	R245-5	7,9	5/16	54	2-1/8
3582392	B19524560	R245-6	9,5	3/8	54	2-1/8

- Thread style: 3/4 – 14 N.P.S.M.
- Steel threads.
- Single, double, or triple outlets.



■ R290 Series • 90°

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3898620	B19529030	R290-3	4,8	3/16	54	2-1/8
3898622	B19529032	R290-32	4,8 x 2	3/16 x 2	54	2-1/8
3752938	B19529033	R290-33	4,8 x 3	3/16 x 3	54	2-1/8
3451518	B19529040	R290-4	6,4	1/4	54	2-1/8
4091645	B19529042	R290-42	6,4 x 2	1/4 x 2	54	2-1/8
3396157	B19529050	R290-5	7,9	5/16	54	2-1/8
2938662	B19529060	R290-6	9,5	3/8	54	2-1/8

*Contact your Kennametal representative or customer service for quote.

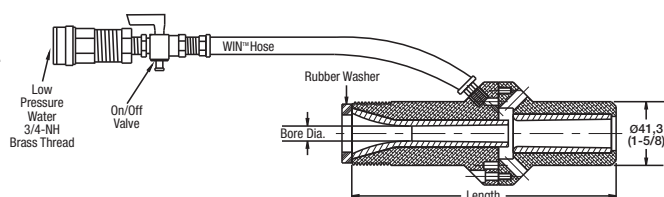
WIN™ (Water Induction Nozzle)

The WIN™ (Water Induction Nozzle) System is a simple, proprietary solution for high-production, wet abrasive blasting that can be used with your existing pressure blast equipment. The system can be used with water from a tap or with rust inhibitors introduced through any simple pump. No special equipment is required. The WIN™ System offers the highest performance possible in wet abrasive blasting technology.

We offer the most popular sizes in both tungsten carbide and our lightweight BP200 SiAlON. Water consumption with these nozzles is much less than with other wet blast systems, only 3/4 to 6 quarts per minute depending on the level of dust suppression desired.

Dimensions below are shown in millimeters and (inches).

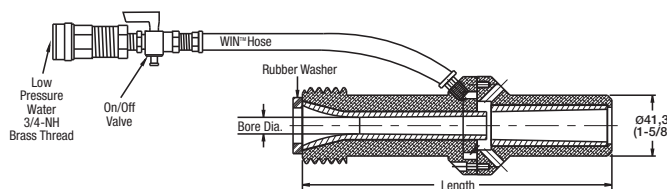
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.



WIN™ System Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939533	B1912535	WIN-3	4,8	3/16	127	5
2939530	B1912545	WIN-4	6,4	1/4	146,1	5-3/4
2939526	B1912555	WIN-5	7,9	5/16	158,8	6-1/4
2939522	B1912565	WIN-6	9,5	3/8	171,5	6-3/4
2939518	B1912575	WIN-7	11,1	7/16	209,6	8-1/4
2939514	B1912585	WIN-8	12,7	1/2	228,6	9

- Thread style: 50mm.
- Aluminum jacket.
- Aluminum threads.



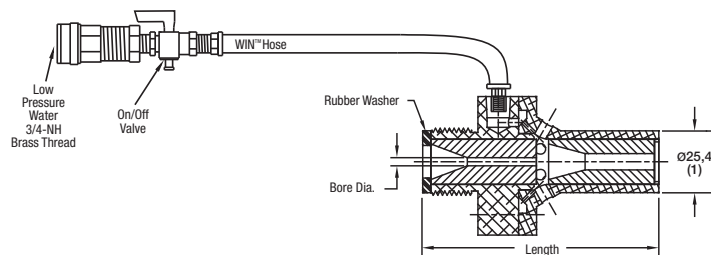
WIN™ 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939529	B1912547	WIN-450	6,4	1/4	146,1	5-3/4
2939525	B1912557	WIN-550	7,9	5/16	158,8	6-1/4
2939521	B1912567	WIN-650	9,5	3/8	171,5	6-3/4
2939517	B1912577	WIN-750	11,1	7/16	209,6	8-1/4
2939513	B1912587	WIN-850	12,7	1/2	228,6	9

**Contact your Kennametal representative or customer service for quote.*

Dimensions below are shown in millimeters and (inches).

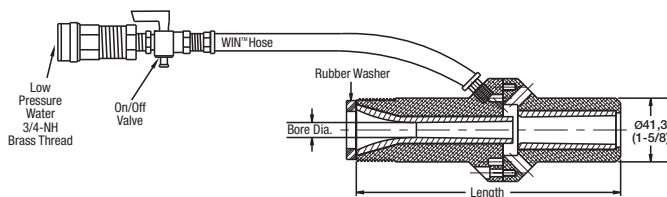
- Thread style: 3/4 – 14 N.P.S.M.
- Aluminum jacket.
- Aluminum threads.
- Use with 1/2" I.D. hose.



■ Mini WIN™ Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
3020075	B1912425	Mini WIN-2	3,2	1/8	88,9	3-1/2
2964622	B1912435	Mini WIN-3	4,8	3/16	88,9	3-1/2
2964633	B1912445	Mini WIN-4	6,4	1/4	88,9	3-1/2
2964634	B1912455	Mini WIN-5	7,9	5/16	88,9	3-1/2
2964635	B1912465	Mini WIN-6	9,5	3/8	88,9	3-1/2

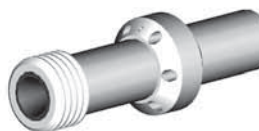
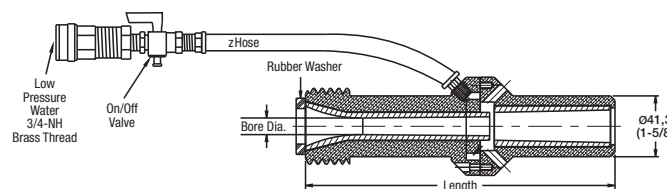
- Thread style: 1-1/4 – 11-1/2 N.P.S.M.
- Lightest weight.
- Aluminum jacket.
- Aluminum threads.



■ SN-BP200 WIN™ SiAlON Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939167	B2612545	SN BP200 WIN-4	6,4	1/4	146,1	5.75
2939163	B2612555	SN BP200 WIN-5	7,9	5/16	158,8	6.25
2939159	B2612565	SN BP200 WIN-6	9,5	3/8	171,2	6.74
2939155	B2612575	SN BP200 WIN-7	11,1	7/16	210,1	8.27
2939151	B2612585	SN BP200 WIN-8	12,7	1/2	229,9	9.05

- Thread style: 50mm.
- Lightest weight.
- Aluminum jacket.
- Aluminum threads.



■ SN-BP200 WIN™ SiAlON 50mm Contractor Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939166	B2612547	SN BP200 WIN-450	6,4	1/4	146,1	5.75
2939162	B2612557	SN BP200 WIN-550	7,9	5/16	158,8	6.25
2939158	B2612567	SN BP200 WIN-650	9,5	3/8	171,2	6.74
2939154	B2612577	SN BP200 WIN-750	11,1	7/16	210,1	8.27
2939150	B2612587	SN BP200 WIN-850	12,7	1/2	229,9	9.05

*Contact your Kennametal representative or customer service for quote.

RS-2000 Abrasive Blasting Guns

Kennametal engineers have created an ergonomically designed abrasive blasting gun to allow operators to complete cleaning applications faster, easier, and more economically. This lightweight, durable one-piece gun is constructed of high-density polyurethane, with a palm grip and thumb hole to give enhanced control and comfort. Weighing only 14 ounces, this device reduces operator fatigue and gives greater control of high-pressure blasting than other systems. Available in right- and left-hand models.

Dimensions below are shown in millimeters and (inches).

- Right- or left-handed gun body.
- Cartridge.
- Nozzle.
- Gun fitting kit.
- Matching air jet.
- Screws.



■ RS-2000 Suction Blast Gun

order number	catalog number	model number	bore diameter		nozzle	gun body
			mm	in		
2939960	B16106BR	B16106BR	6,4	1/4	tungsten carbide	right hand
*	B16106BL	B16106BL	6,4	1/4	tungsten carbide	left hand
2939966	B16103BR	B16103BR	6,4	1/4	boron carbide	right hand
3125491	B16103BL	B16103BL	6,4	1/4	boron carbide	left hand
2939962	B16105BR	B16105BR	7,9	5/16	tungsten carbide	right hand
2939963	B16105BL	B16105BL	7,9	5/16	tungsten carbide	left hand
2939967	B16102BR	B16102BR	7,9	5/16	boron carbide	right hand
4083480	B16102BL	B16102BL	7,9	5/16	boron carbide	left hand
2939965	B16104BR	B16104BR	9,5	3/8	tungsten carbide	right hand
3017239	B16104BL	B16104BL	9,5	3/8	tungsten carbide	left hand
2939968	B16101BR	B16101BR	9,5	3/8	boron carbide	right hand
2939969	B16101BL	B16101BL	9,5	3/8	boron carbide	left hand
2939957	B16108BR	B16108BR	12,7	1/2	tungsten carbide	right hand
5102327	B16108BL	B16108BL	12,7	1/2	tungsten carbide	left hand
2939958	B16107BR	B16107BR	12,7	1/2	boron carbide	right hand
*	B16107BL	B16107BL	12,7	1/2	boron carbide	left hand

**Contact your Kennametal representative or customer service for quote.*

RS-2000 Blast Gun Replacement Parts, Nozzles and Air Jets

RS-2000 components and replacements may also be purchased separately. Air jets and nozzles are available in tungsten carbide or boron carbide in a variety of sizes.

Dimensions below are shown in millimeters and (inches).

- Right- or left-handed.
- Two tie straps.
- Polyurethane.



- 10ft 1/2" I.D. compressed air hose.
- 10ft 5/8" I.D. polyurethane abrasive feed hose.
- Air fitting: 1/2" I.D. brass hose connection.
- Abrasive fitting: 5/8" I.D. steel hose.
- Two tie straps.
- Two stainless steel hose clamps.



■ RS-2000 Pressure Blast Gun

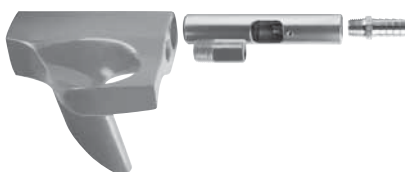
order number	catalog number	model number	gun body
2914083	B1300301	B1300301	right hand
2909762	B1300302	B1300302	left hand

■ Hose Kit

order number	catalog number	model number
2933154	B1600501	B1600501

■ Suction Blast Air Requirements (SCFM)

				pressure (psi)							
nozzle		air jet		30	40	50	60	70	80	90	100
mm	in.	mm	in.								
6,4	1/4	3,2	1/8	10	12	15	17	19	21	23	26
7,9	5/16	4	5/32	15	19	23	27	31	37	38	42
9,5	3/8	4,8	3/16	22	26	30	35	40	45	49	54
12,7	1/2	6,4	1/4	36	45	53	60	67	74	81	87



■ RS-2000 Replacement Parts

order number	catalog number	model number	description
2914084	B130030	B130030	Gun fitting kit: 2 hose clamps, 2-1/2" air fittings, 5/8" abrasive fitting
2914086	B130017	B130017	Metal cartridge body 1/4", 5/16", 3/8" nozzles
2914085	B130028	B130028	Metal cartridge body, 1/2" bore nozzles
2911460	B130117	B130117	Set screw for air jet assembly
2911476	B130011	B130011	Mounting screw for gun body/cartridge
2911475	B130012	B130012	Tie strap
2914088	B1300007	B1300007	Gun body, polyurethane, right hand
2914087	B1300008	B1300008	Gun body, polyurethane, left hand

**Contact your Kennametal representative or customer service for quote.*

Tungsten Carbide Air Jets for RS-2000

Dimensions below are shown in millimeters and (inches).

- Straight bore.
- 5/16" O.D. air jet insert.



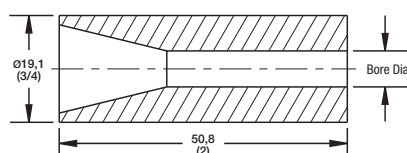
TL107 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939827	B1730721	TL107-2	3,4	1/8	19,1	3/4
2939826	B1730725	TL107-2-1/2	4	5/32	19,1	3/4
2939825	B1730731	TL107-3	4,8	3/16	19,1	3/4
2939824	B1730741	TL107-4	6,4	1/4	19,1	3/4

Tungsten Carbide Nozzles for RS-2000

Dimensions below are shown in millimeters and (inches).

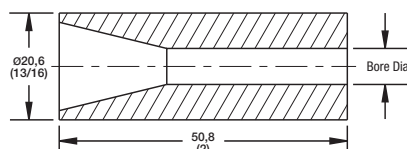
- RS2000 gun insert.
- Use with cartridge body B130017.



TL175 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939808	B1737541	TL175-4	6,4	1/4	50,8	2
2939807	B1737551	TL175-5	7,9	5/16	50,8	2
2939806	B1737561	TL175-6	9,5	3/8	50,8	2

- RS2000 gun insert.
- Use with cartridge body B130028.



TL175-8 Series

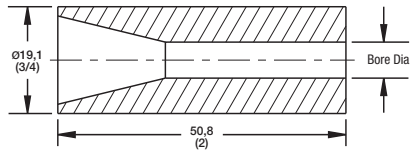
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2939805	B1737581	TL175-8	12,7	1/2	50,8	2

*Contact your Kennametal representative or customer service for quote.

Boron Carbide Nozzles for RS-2000

Dimensions below are shown in millimeters and (inches).

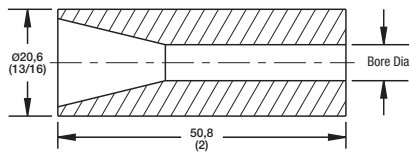
- RS2000 gun insert.
- Use with cartridge body B130017.



■ 75 Series

order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940338	B1175840	B4L-75	6,4	1/4	50,8	2
2940337	B1175850	B5L-75	7,9	5/16	50,8	2
2940336	B1175860	B6L-75	9,5	3/8	50,8	2

- RS2000 gun insert.
- Use with cartridge body B130028.



■ L230-8 Series

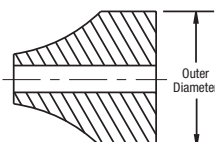
order number	catalog number	model number	bore diameter		length	
			mm	in	mm	in
2940361	B1123080	L230-8	12,7	1/2	50,8	2

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

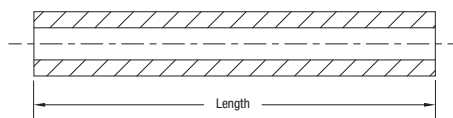
Rubber Washers/Gaskets

order number	catalog number	model number	size	outer diameter		inner diameter	
				mm	in	mm	in
2913917	B130110	130110	Small	25,4	1	12,7	1/2
2913916	B130111	130111	Medium	38,1	1-1/2	19,0	3/4
2913915	B130112	130112	Large	38,1	1-1/2	25,4	1
2913914	B130102	130103	Wide Entry	41,3	1-5/8	31,8	1-1/4



Deflector Tips for Hollo-Blast

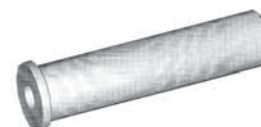
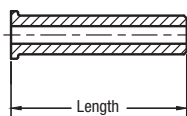
order number	catalog number	deflector tip materials	outer diameter	
			mm	in
2939801	B1740095	Tungsten Carbide – Sr.	21,1	.83
3653968	B1110095	Boron Carbide – Sr.	21,1	.83
2939657	B1888900	ROCTEC® 500 Sr.	21,1	.37
4062481	B1740074	Tungsten Carbide – Jr.	9,5	.37
3063343	B1888902	ROCTEC® 500 Jr.	9,5	.37



Protection Sleeves for Hollo-Blast

order number	catalog number	deflector tip materials	length	
			mm	in
5090844	5090844	Stem Extension; Tungsten Carbide	50,8	2
3690493	B1888931	Stem Extension; ROCTEC® 500	50,8	2
5090778	5090778	Throat; Tungsten Carbide	63,5	2-1/2
3852823	B1888933	Throat; ROCTEC® 500	63,5	2-1/2
*	*	One-Piece; Tungsten Carbide	114,3	4-1/2
3952007	B1888928	One-Piece; ROCTEC® 500	114,3	4-1/2

- Tungsten carbide extension.



BNP Suction Gun Extension

order number	catalog number	bore diameter		length	
		mm	in	mm	in
3582509	B1700044	8,0	5/16	79,2	3-1/8
2938934	B1700066	8,0	5/16	155,5	6-1/8
4088134	B1700088	8,0	5/16	241,3	9-1/2

*Contact your Kennametal representative or customer service for quote.

Dimensions below are shown in millimeters and (inches).

■ Hose for WIN™ System

order number	catalog number	model number	item
2932648	B1912500	1912500	WIN™ Hose

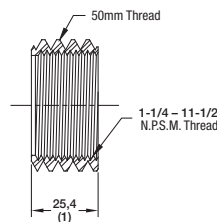
■ Nozzle Holders

Kennametal carries a wide variety of nozzle holders, please contact your Kennametal Representative or Authorized Kennametal Distributor for more information.

Thread Adapters

Dimensions below are shown in millimeters and (inches).

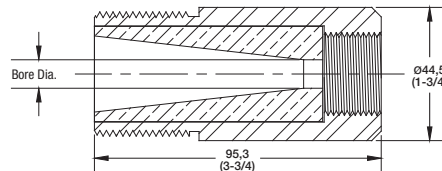
- Thread style: 50mm.
- Adapter: 1-1/4" to 50mm.



■ 1-1/4" to 50mm Adapter

order number	catalog number	model number
2913964	B130784	130784

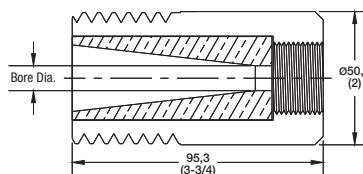
- Adapter: 1-1/4" – 3/4" N.P.S.M.
- Boron Carbide lined.



■ 1-1/4" to 3/4" Adapter

order number	catalog number	model number
2958539	B1502501	1502501

- Thread style: 50mm.
- Adapter: 50mm – 3/4" N.P.S.M.
- Boron Carbide lined.



■ 50mm to 3/4" Adapter

order number	catalog number	model number
3092894	B1502500	1502500

*Contact your Kennametal representative or customer service for quote.

Important Safety Information

Read and understand these warnings.

DANGER indicates a hazardous situation, which, if not avoided, will result in serious injury or death.

WARNING indicates a hazardous situation, which, if not avoided, can result in serious injury or death.



■ Breathing Hazard

Abrasive blasting produces dusts that can cause serious or fatal diseases, including silicosis, heavy-metal lung disease, and lead poisoning. Dusts may remain suspended in the air for hours after blasting operations have stopped. Always wear a NIOSH-approved, supplied air respirator when blasting, handling abrasive, or in the blasting area.

Consult NIOSH and OSHA regulations for the proper respirator for your application. See www.osha.gov and www.cdc.gov/niosh for more information.

■ Blast Stream Hazard

High-pressure blast streams can cause serious injury. Always point blast nozzle in a safe direction. Never point nozzle at another person or at any part of your body.

Always wear appropriate Personal Protective Equipment, including abrasive-resistant blast suit, safety boots, footwear, leather gloves, eye and ear protection, and supplied air appropriate respirator.

Use only blast equipment equipped with a remote control (dead-man switch) that must be manually depressed to operate nozzle. Never defeat the remote control!



■ Recoil Hazard

Blast equipment operates under high pressure that can cause a recoil effect. Before operating nozzle, be sure your footing is solid and you are prepared for the recoil. Never operate blast equipment from a ladder. Always point nozzle in a safe direction and bleed off residual pressure after blast equipment has been shut down. Lock nozzle in closed position when transporting.

■ Breakage Hazard

Inspect nozzle before use for damage and wear. Never use a cracked or damaged nozzle. If the nozzle breaks, broken pieces of the nozzle may enter the blast stream or the blast stream may be directed through the side of the nozzle toward the operator rather than through the discharge end. If nozzle is worn, blasting efficiency will be reduced. See Tips on Maintenance (page 13) for more information on how to inspect nozzles.



To learn more, contact your Kennametal Representative or Authorized Kennametal Distributor at:

Phone: 800.662.2131 or 231.946.2100

Fax: 800.662.2132 or 231.946.3025

Email: traversecity.service@kennametal.com

Photos on the front cover right, page 1 and page 3
courtesy of Progressive Surface.

Abrasive Blast Nozzles

WORLD HEADQUARTERS

Kennametal Inc.

1600 Technology Way

Latrobe, PA 15650

USA

Tel: 800.446.7738 (United States and Canada)

E-mail: ftmill.service@kennametal.com

EUROPEAN HEADQUARTERS

Kennametal Europe GmbH

Rheingoldstrasse 50

CH 8212 Neuhausen am Rheinfall

Switzerland

Tel: 41.52.6750.100

E-mail: neuhausen.info@kennametal.com

ASIA-PACIFIC HEADQUARTERS

Kennametal Singapore Pte. Ltd.

3A International Business Park

Unit #01-02/03/05, ICON@IBP

Singapore 609935

Tel: 65.6265.9222

E-mail: k-sg.sales@kennametal.com

INDIA HEADQUARTERS

Kennametal India Limited

8/9th Mile, Tumkur Road

Bangalore - 560 073

Tel: 91.80.2839.4321

E-mail: bangalore.information@kennametal.com



www.kennametal.com