



## **VM Series Round Slide Single Carburetors**

These are the most popular high performance single carburetors in the sport of motorcycling. Mikuni's VM Series round slide single carburetors have proven themselves as the performance standard for use in any cylinder motorcycle and ATV application for motocross, enduro, and trail riding, to flat track racing and road racing on both 2-stroke and 4-stroke engines. Performance features for the VM Series Carburetors include a large selection of bore sizes for increased fuel mixture flow to match engine modifications. A wide range of tuning components are available to allow precise fuel mixture

## **Sudco Special Jetted Mikuni Carburetors**

Sudco can "Special Jet" any Mikuni Carburetor for your particular application. Below is the information you will need to provide our Carburetor Specialist Technicians so they can provide you with the correct carburetor and jetting.

1. *Carburetor Size (mm)*
2. *Type of Carburetor (Clamp-On, Spigot Mount, Flange Mount, Flat-Slide, etc.)*
3. *Application (Model, Year and Cubic Centimeters)*
4. *Modifications on motorcycle (Explain)*
5. *Type of Motorcycle Use (Street, drag, Road Race, Motocross, Enduro, etc.)*
6. *Type of Fuel Used*
7. *Climate Conditions (Indicate if high altitude)*

Most popular settings are already available. However, if you have modifications, it is necessary to follow the guidelines to insure receiving the proper jetting at the closest range.

**Please Note:** Changes and jetting modifications are for use only on racing machines or similar off-road vehicles where pollution laws are not in effect. Not legal for vehicles operated on public highways in the State of California or other areas where similar pollution laws may apply.

# Mikuni VM Roundslides

## Standard "Left" Idle Screw Jetting Spec

All VM Series Round Slide carbs are available in Standard jetting as below.

Order No.	Mikuni No.	Main Jet	Pilot Jet	Needle Jet	Jet Needle	Throttle Valve	Air Jet	Needle Valve
001-000	VM16-519	N100.604 #70	VM22/210 #25	165 D-8	3DJ3	2.5		VM15/172 1.8
001-001	VM18-144	4/042 #80	VM22/210 #30	145 O-0	4F18	VM18/158 3.0	None	VM15/175 1.5
001-005	VM20-273	4/042 #180	VM28/1001 #22.5	239 O-6	4J13	VM20/491 2.0	.5 (fixed)	VM15/172 1.5
001-007	VM22-133	4/042 #100	VM22/210 #30	257 N-8	4D20	VM26/21 2.0	None	VM26/26 2.0
001-020	VM26-8074	4/042 #190	VM22/210 #60	182 N-8	5F21	VM28/56 2.0	BS30/97 0.5	VM26/26 2.5
001-024	VM30-83	4/042 #250	VM22/210 #40	159 P-5	6F5	VM34/110 2.5	BS30/97 2.0	VM34/39 3.3
001-028	VM32-33	4/042 #200	VM22/210 #35	159 Q-6	6DP17	VM34/110 3.0	BS30/97 2.0	VM34/39 3.3
001-030	VM34-168	4/042 #260	VM22/210 #35	159 Q-2	6DH4	VM34/110 2.5	BS30/97 2.0	VM34/39 3.3
001-035	VM36-4	4/042 #310	VM22/210 #35	159 Q-5	6FJ6	VM36/36 2.5	BS30/97 2.0	VM34/39 3.3
001-048	VM44-3	4/042 #310	VM22/210 #35	224 AA-5	7F7	VM44/23 2.5	BS30/97 .5	VM34/39 3.3

## Standard "Right" Idle Screw Jetting Spec

Order No.	Mikuni No.	Main Jet	Pilot Jet	Needle Jet	Jet Needle	Throttle Valve	Air Jet	Needle Valve
001-051	VM32-193	4/042 #200	VM22/210 #35	159 Q-6	6DP17	VM32/65 3.0	BS30/97 2.0	VM34/39 3.3
001-052	VM34-275	4/042 #260	VM22/210 #35	159 Q-2	6DH4	VM32/65 2.5	BS30/97 2.0	VM34/39 3.3
001-040	VM38-9	4/042 #330	VM22/210 #30	166 Q-2	6DP1	VM38/24 2.5	BS30/97 0.5	VM34/39 3.3

## Snowmobile Single Carburetors

Order No.	Mikuni No.	Main Jet	Pilot Jet	Needle Jet	Jet Needle	Throttle Valve	Air Jet	Needle Valve
001-029	VM34-389	4/042 #330	VM22/210 #30	159 Q-0	6DH3	VM30/110 2.5	BS30/97 2.0	VM28/163 1.5
001-041	VM38-21	4/042 #360	VM22/210 #40	166 Q-0	6DH3	VM38/24 2.5	2.5 Body	VM28/163 1.5
001-047	VM44-7	4/042 #540	VM22/210 #35	224 AA-5	7DH2	VM40/02 Alum 1.5	BS30/97 .7	VM28/163 1.5

### Power Jet Kit

002-041 MK-406 (Use for extended full throttle running)

### Cable Starter Kit

002-351 MK-412 (For remote mounting or starter control)



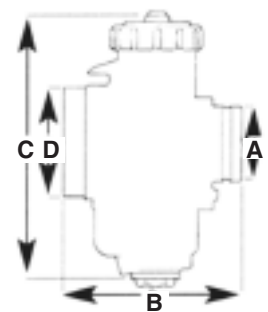
## Special Set

### Left Idle Screw

	Jetting Change	T/V Change
VM20	001-150	001-151
VM22	001-138	001-139
VM26	001-110	001-111
VM30	001-114	001-115
VM32	001-116	001-117
VM34	001-160	001-161
VM36	001-122	001-123
VM44	001-132	001-133

### Right Idle Screw

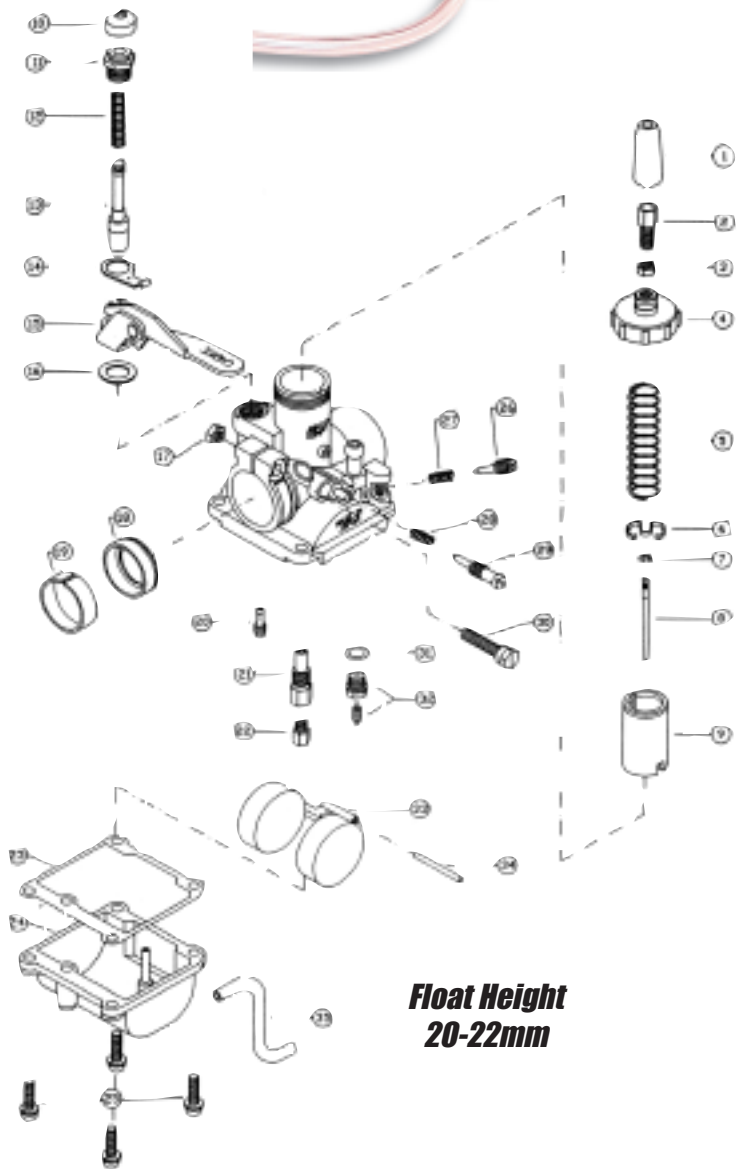
	Jetting Change	T/V Change
VM32	001-166	001-167
VM34	001-168	001-169
VM38	001-126	001-127



## Carburetor Dimensions

MODEL	VM16	VM18	VM20	VM22	VM26	VM30	VM32	VM34	VM36	VM38	VM44
<b>A</b>	Clamp-on 21 ID	Clamp-on 22 ID	Flange 50.8 Bolt Ctr.	Flange 49 Bolt Ctr.	35	40	40	40	43	43	52
<b>B</b>	67	67	66	85	93	93	102	93	116	116	116
<b>C</b>	95	108	115	114	122	137	142	137	152	154	193
<b>D</b>	28	32	43	43	44	58	58	58	62	62	70
<b>Total Width</b>	61	61	76.5	82	82	83	83	83	79	79	79
<b>Throttle Adjuster &amp; Air Screw Position</b>	Left	Left	Left	Left	Left	Left	Left	Left	Left	Right	Left
Adjuster Air Screw	Left	Left	Left	Left	Right	Right	Right	Right	Right	Right	Right
Weight (g)		492	546		550	800	770	750	750	830	1104
Material		Alum	Alum.	Alum.	Brass	Brass	Brass	Brass	Brass	Brass	Brass

No.	Order No.	Mikuni Part No.	Description
1.	007-685	VM18/67	Rubber Cap, Throttle Cable
2.	002-062	M21/14	Cable Adjuster
3.	002-065	B30/247	Nut, Cable Adjuster
4.	007-273	VM16/40	Top, Mixing Chamber
5.	007-274	VM18/170	Spring, Throttle Valve
6.	007-686	VM18H1/38	Clip, Jet Needle Retaining
7.	002-083	VM20/369	E-Ring, Jet Needle
8.	Pg. 59	J8-4F18	Jet Needle
9.	007-425	VM18/158-1.0	Throttle Valve
10.	002-084	VM20/455	Rubber Cap, Starter Plunger
11.	002-085	VM20/456	Fitting, Starter Plunger
12.	002-671	VM16/42	Spring, Starter Plunger
13.	002-092	VM18/144	Starter Plunger
14.	—	VM18/151	Spring Plate, Starter Lever
15.	007-687	VM18/215	Starter Lever
16.	—	BV26/118	Washer, Starter Lever
17.	007-279	N1=05	Nut, Clamp Bolt
18.	007-280	VM18/326	Sealing Ring, Rubber
19.	007-281	VM18/327	Ring, Insulator (I.D.=23mm)
20.	Pg. 64	VM22/210-#30	Pilot Jet
21.	—	VM15H1/17-0-0	Needle Jet
22.	Pg. 63	4/042- #80	Main Jet
23.	007-282	VM17/161	Gasket, Float Bowl
24.	007-283	VM18/161	Float Bowl
25.	002-522	CW2=0414	Screw, Float Bowl 4x14mm
26.	002-720	VM20/305	Air Adjusting Screw
27.	002-863	VM15/112	Spring, Air Adjusting Screw
28.	002-863	VM15/112	Spring, Idle Adjusting Screw
29.	007-284	VM18/164	Idle Adjusting Screw
30.	007-285	VM16/65	Bolt, Clamp
31.	007-286	VM15/07	Washer, Needle Valve
32.	007-288	VM15/172-1.5	Needle Valve & Seat Assy
33.	007-290	VM17/159	Float
34.	002-107	BV26/22	Pin, Float
35.	—	VM13/06	Hose Overflow



### 100° Cable Adjuster Assembly

Comes with rubber cap, 2 locknuts, cable adjuster and adjuster and 100° tube. Works on Mikuni and Keihin carburetor caps.

Order No. 007-729



# Mikuni VM26-606 with Side Choke Parts

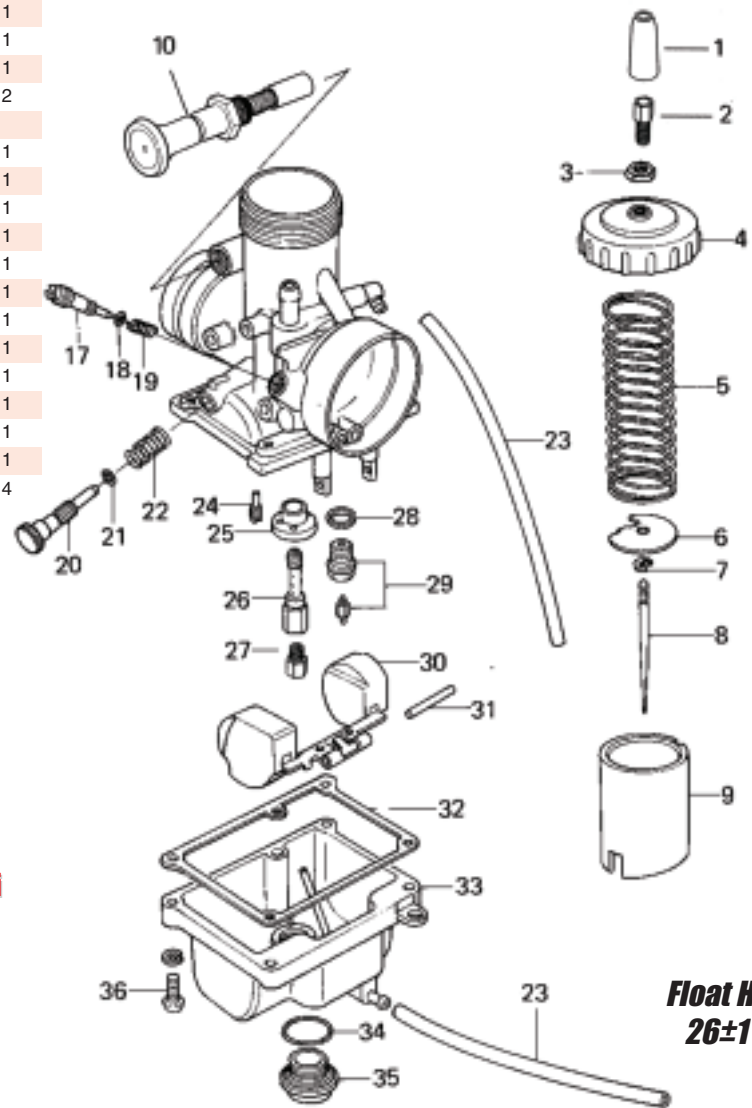
## Mikuni VM26-606 Replacement Parts

Replacement part numbers not listed will be available in 2007. Contact sales department for details on availability. Replacement parts are sold each.

No.	Order No.	Mikuni No.	Description	Qt Required
1	002-061	VM26/46	Throttle Cable, Rubber Cap	1
2	002-062	M21/14	Cable Adjuster	1
3	002-065	B30/247	Cable Adjuster Locknut	1
4	002-236	VM26/44A	Mixing Chamber Top (Cap)	1
		VM26/57	Mixing Chamber Top Gasket (comes with cap only)	1
5	002-069	VM24/195	Spring, Throttle Valve	1
6	002-079	VM26/55	Spring Seat Plate	1
7	002-083	VM20/369	E-Ring, Jet Needle (clip)	1
8		J8-5E75	Jet Needle	1
9		VM24/361	Throttle Valve CA 1.5	1
10		VM16/210A	Starter Plunger Assy. (choke)	1
11-16	Not available	Individual Parts for Starter Plunger Assy.		
17		VM14/73	Air Screw	1
18	002-676	VM14/75	O-Ring, Air Screw	1
19	002-863	VM15/112	Spring, Air Screw	1
20		603-16002	Idle Adjuster Screw	1
21	002-212	BV32/04	O-Ring, Idle Screw	1
22		VM26/197	Spring, Idle Adjuster Screw	1
23	009-055	VM17/177A	3mm I.D Vent & Overflow Hose (sold per foot length only)	2
24	Pg. 64	M28/1001	Pilot Jet	1
25		VM26/538	Main Jet Ring	1
26		VM26/581	Needle Jet 0-0 (332)	1
27	Pg. 63	4/042	Large Hex Main Jet	1
28	002-188	VM26/25	Washer for Needle Valve Seat	1
29	002-190	VM26/26	Needle Valve Set.(2.5)	1
30	007-255	VM24/365	Float	1
31	002-107	BV26/22	Float Pin	1
32	007-250	VM20/492	Float Bowl Gasket	1
33		VM22/314	Float Bowl	1
34	002-602	BN042/64	O-Ring, Drain Plug	1
35		BN042/58	Main Jet Drain Plug	1
36	002-823	CW2=0416	Screw 4 x 16mm, Float Bowl	4



Order No.  
001-021



Float Height  
26±1 mm



## Coming Soon Limited Edition with Serial Number, Mokato Tamada, and Loris Capirossi Helmet Optical Mouse

### Simpson Helmet Optical Mouse

- 1/5 scale model helmet with official logo.
- Optical 800 d.p.i mouse with right/ leftclick and scrolling function.
- Detachable USB cable
- Works with most Windows (98 or later), and Mac OS

Color	Order No.
Pearl	949-055P
Red	949-055R
Yellow	949-055Y

ORDER: 800-998-3529

TECH: 323-728-5407

# Mikuni VM Spigot Mount Type Exploded View

Exhaust

Chemicals

Intake

Control

Suspension

Engine

Electrical

Vintage

Tools

Watercraft

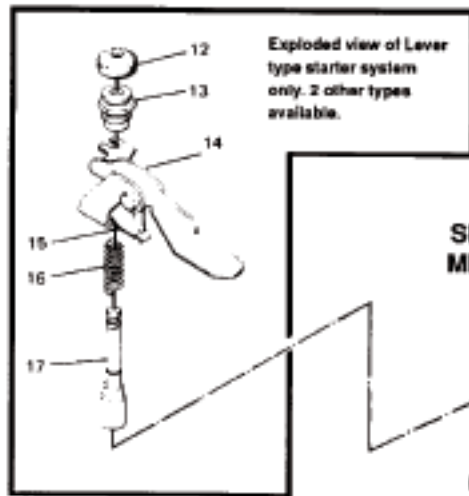
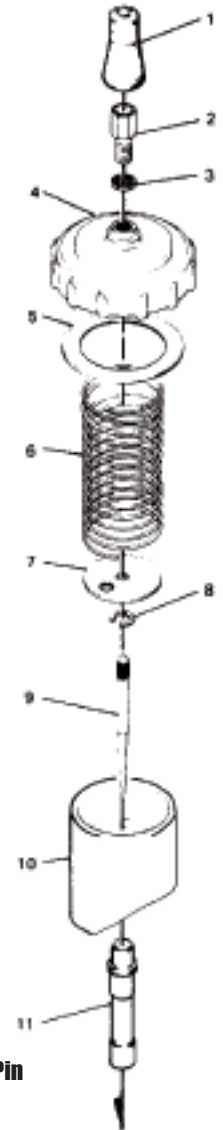
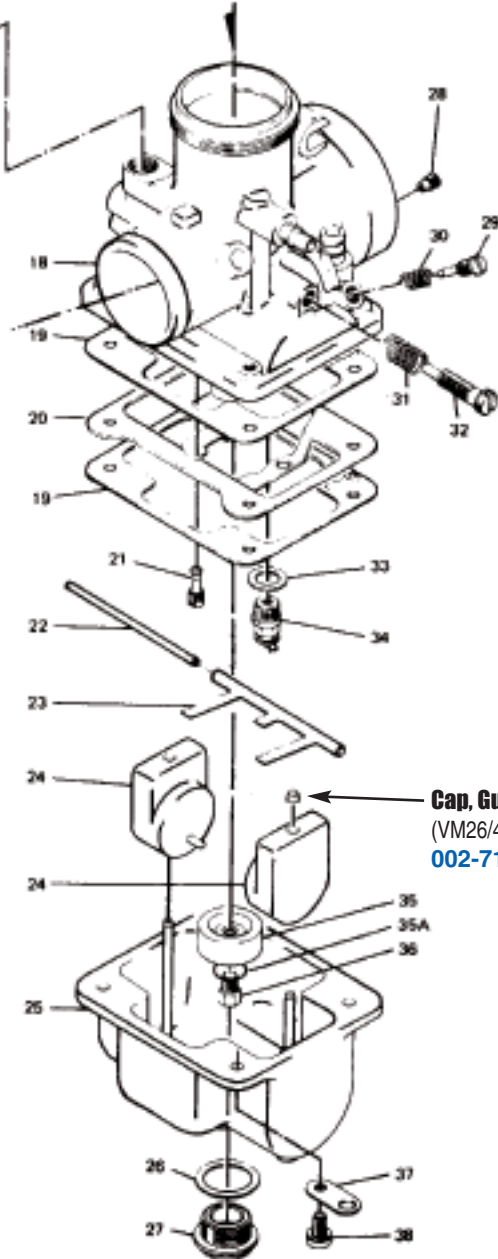


DIAGRAM A  
Exploded view of a  
SPIGOT MOUNT TYPE  
MIKUNI CARBURETOR

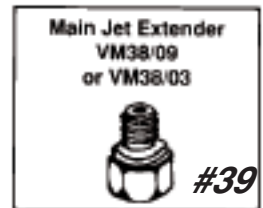


## Float Height

Model	Height	
	inch	mm
VM22-133	.94~1.02	24~26
VM26-74	.59~.66	15~17
VM28-49	.59~.66	15~19
VM30-83	.86~.94	22~24
VM32-33	.86~.94	22~24
VM34-168	.86~.94	22~24
VM36-4	.66~.74	17~19
VM38-9	.66~.74	17~19
VM40-4	.66~.74	17~19
VM44-4	.66~.74	17~19



Cap, Guide Pin  
(VM26/42)  
002-718



No. Mikuni Part No.		Order No.
<b>1. Throttle Cable, Rubber Cap</b>		
VM26/46	all Mikuni carbs	<b>002-061</b>
VM22/18	for 45° angled cable adjuster	<b>002-370</b>
<b>2. "A" Cable Adjuster</b>		
M21/14	all Mikuni carbs (6mm)	<b>002-062</b>
VM28/256	all Mikuni carbs (7mm)	<b>002-063</b>
<b>"B" Angled Cable Adjuster(45°)</b>		
I-M22-10-3	all Mikuni carbs	<b>002-064</b>
<b>3. Cable Adjuster Locknut</b>		
BS30/247	all Mikuni carbs	<b>002-065</b>
<b>4. Mixing Chamber Top</b>		
VM26/56	all 22 - 24mm	<b>002-236</b>
VM26/51	all 30mm small body	<b>002-235</b>
VM34/27	all 30 - 34mm	<b>002-066</b>
VM36/09	all 36 - 38mm	<b>002-067</b>
VM44/05	all 40 - 44mm	<b>002-068</b>
<b>5. Mixing Chamber Top, Gasket</b> comes with all mixing chamber tops		
<b>6. Spring, Throttle Valve</b>		
VM24/195	22mm, 28mm	<b>002-069</b>
VM28/58	26mm	<b>002-071</b>
VM34/50	30mm spigot, 32 - 34mm flange (std)	<b>002-072</b>
VM34/55	all 32 - 36mm (std)	<b>002-074</b>
VM28/28	30 - 36mm spigot "Lighter"	<b>002-070</b>
VM34/06	30 - 36mm spigot "Lightest"	<b>002-073</b>
VM34/152	38mm spigot	<b>002-138</b>
VM44/13	all 40 - 44mm spigot	<b>002-075</b>
<b>7. Spring Seat Plate</b>		
VM26/54	26 - 30mm flange	<b>002-077</b>
VM28/132	26 - 28mm spigot	<b>002-079</b>
VM34/31	30 - 34mm spigot, 32 - 34mm flange	<b>002-080</b>
VM35/09	all 36 - 38mm spigot	<b>002-081</b>
VM44/09	all 40 - 44mm spigot	<b>002-082</b>
<b>8. Needle Positioning Clip</b>		
VM20/369	all Mikuni carbs	<b>002-083</b>
BS32/126	40 - 44mm spigot	<b>002-455</b>
<b>9. Jet Needles</b>		
4 series	18 - 22mm	<b>Pg. 59</b>
5	26 - 28mm	
6	30 - 38mm	
7	40 - 44mm	
<b>10. Throttle Valves</b> <b>Pg. 65-66</b>		
<b>11. Needle Jets</b> <b>Pg. 58-59</b>		
145 series	18mm	
239	20mm	
257	22mm	
182	26mm	
169	28mm	
159	30 - 36mm	
166	38mm	
224	40 - 44mm	
<b>12. Starter Plunger Rubber Cap</b>		
VM20/455	30 - 44mm spigot	<b>002-084</b>
<b>13. Starter Plunger Fitting</b>		
VM20/456	30 - 44mm spigot	<b>002-085</b>
<b>14. Starter Lever</b>		
VM28/124	30 - 34mm spigot	<b>002-135</b>
VM32/53	36 - 38mm spigot	<b>002-087</b>
VM36/58	22, 40 - 44mm spigot	<b>002-136</b>

No. Mikuni Part No.		Order No.
<b>15. Starter Lever Spring Plate</b>		
VM26/09c	26 and 28 spigot	<b>002-088</b>
VM32/17	30 - 44mm spigot	<b>002-089</b>
<b>16. Starter Plunger Spring</b>		
VM14SC11/89	36 - 44mm spigot	<b>002-090</b>
VM15SC6/89	26 - 34mm flange	<b>002-358</b>
<b>17. Starter Plunger</b>		
VM15/62	24 - 26mm flange, 26 - 28mm spigot	<b>002-091</b>
VM18/144	30 - 34mm flange, 30 - 44mm spigot	<b>002-092</b>
<b>18. Mixing Chamber Body</b>		
<b>19. Float Bowl Gasket</b>		
VM20/492	20mm flange	<b>007-250</b>
VM30/103	22/26 - 34mm flange	<b>002-099</b>
VM28/129	28mm spigot	<b>002-361</b>
VM30/172	30 small body	<b>002-103</b>
VM34/30 (999-631-011)	30 - 34mm spigot (without baffle plate)	<b>002-100</b>
VM34/71 (999-631-010)	30 - 34mm spigot (with baffle plate)	<b>002-101</b>
VM36/20	36 - 44mm spigot	<b>002-102</b>
<b>20. Float Bowl Baffle Plate</b>		
VM34/72	30 - 34mm spigot	<b>002-104</b>
VM34/114	30 - 34mm spigot (replacement)	<b>002-362</b>
VM36/16	36 - 38 spigot	<b>002-105</b>
VM44/12	40 - 44mm spigot	<b>002-106</b>
<b>21. Pilot Jet</b> <b>Pg. 64</b>		
VM22/210 Series	18mm, 22 - 44mm, 32 - 38mm*	
VM28/1001	20mm	
<b>22. Float Arm Hinge Pin</b>		
BV26/22	26 - 28mm spigot, 24 - 34mm flange	<b>002-107</b>
VM30/160	30 - 44mm spigot	<b>002-605</b>
<b>23. Float Arm</b>		
VM28/59	26 - 34mm flange	<b>002-108</b>
VM28/166	26 - 28mm spigot, 30SB	<b>002-109</b>
VM34/41	30 - 34mm spigot	<b>002-110</b>
VM34/73	30 - 34mm spigot	<b>002-111</b>
VM36/15	36 - 44mm spigot	<b>002-112</b>

### Pull-Up Type Starter System

Complete Pull-Up Type Starter System.  
Includes items A thru E. **Order No.**

**002-352**

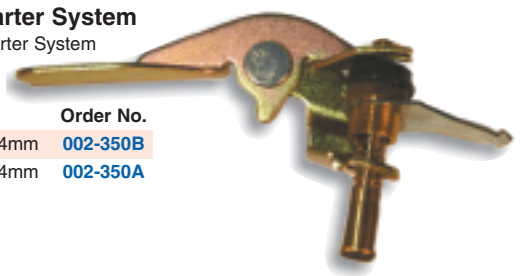


<b>A. Rubber Cap</b>		
VM20/455	30 - 44mm spigot	<b>002-084</b>
<b>B. Clip</b>		
VM14SC11/99	30 - 44mm spigot	<b>002-096</b>
<b>C. Starter Plunger Fitting</b>		
VM20/300	30 - 44mm spigot	<b>002-097</b>
<b>D. Starter Plunger Spring</b>		
VM14SC11/89	30 - 44mm spigot	<b>002-090</b>
<b>E. Starter Plunger</b>		
VM38/06	30 - 44mm spigot	<b>002-098</b>

### Lever Type Starter System

Complete Lever Starter System  
includes items 12  
through 17. **Order No.**

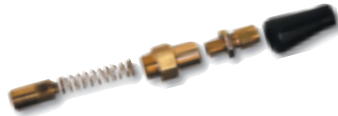
30 - 34mm **002-350B**  
36 - 44mm **002-350A**



## Cable Type Starter System

Complete Cable Type Starter System.  
Includes items A thru F.

Mikuni Part No. Order No.  
MK-412 002-351



No. Mikuni Part No.	Order No.
A. Starter Plunger Top, Rubber Cap VM26/46	30 - 44mm spigot 002-061
B. Cable Adjuster M21/14	30 - 44mm spigot, 30 - 34mm flange 002-062
C. Cable Adjuster Locknut B30/247	30 - 44mm spigot, 30 - 34mm flange 002-065
D. Starter Plunger Fitting VM15/37	30 - 44mm spigot, 30 - 34mm flange 002-093
E. Starter Plunger Spring VM32/69	30 - 44mm spigot, 30 - 34mm flange 002-094
F. Starter Plunger VM15SC4/85	30 - 44mm spigot, 30 - 34mm flange 002-095
24. Float	Two Basic Types of Float Systems, Independent, and Twin.



Type A Independent Floats



**A. Independent Type:** non-corrosive plastic compound. Standard in 26 - 44mm spigot and flange type carburetors.

VM28/164	26 - 28mm spigot	002-116
VM24/236	26 - 30mm flange, 36 - 44mm Spigot	002-113
VM34/36	30 - 34mm spigot	002-118
VM34/61	30 - 34mm spigot (with baffle plate)	002-119
VM32/55	32mm flange	002-117

Type B Brass Floats



**B. Twin Type:** Brass compound. Standard in 18 - 24mm flange and clamp-on type carburetors.

VM24/171	24 - 26mm flange	002-114
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Type C Floats



**C. Twin Type:** non-corrosive plastic compound. (shown below)  
For VM20-273 flange type carburetors.

VM20/495	20mm flange	007-725
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No. Mikuni Part No.	Order No.
25. Float Bowl	
VM34/68	30 - 34mm spigot with overflow 002-121
VM36/07	36 - 38mm spigot 002-122
VM44/04	40 - 44mm spigot 002-120
26. Main Jet Plug Washer	
4/053	30 - 38mm spigot 002-127
VM28/134	28, 40 - 44mm spigot 002-128
VM28/254	(O-Ring) 002-531
27. Main Jet Plug	
VM28/133	28, 40 - 44mm spigot 002-130
VM34/42	30 - 34 spigot Brass 002-131
VM28/253	30 - 36mm 002-526
VM26/160	30mm small body 002-133
VM38/08	30 - 34 & 38mm (Brass deep type plug) 002-134
28. Air Jet	Pg. 64
BS30/97 Series	26 - 44mm
29. Air Adjusting Screw	
VM20/214	26 - 44mm spigot, 24 - 34mm flange 002-180
30. Air Adjusting Screw Spring	
M12F/46A	26 - 44mm spigot 002-181
31. Idle Adjusting Screw Spring	
M20/11	26 - 44mm spigot, 24 - 34mm flange 002-182
32. Idle Adjusting Screw	
VM28/142	30mm spigot 002-139
VM22/171	30mm flange, 36 - 38mm spigot 002-183
VM24/224	26, 28, 34, 40mm and Idle Conversion 002-184
	for Yamaha Blaster, Banshee, 24-34 flange
VM30/170	30mm small body spigot 002-186
B30/247	Locknut 002-065
33. Needle Valve Washer	
B34/52-.05	30 - 44mm spigot 002-187
VM26/25	24 - 30mm flange, 26 - 28 spigot 002-188
34. Needle Valve Set (Needle & Seat Assembly)	
	<i>Note: All needle valve seats listed are thread-in, not press-in.</i>
VM26/26	1.0 002-230
	1.5 20 - 30mm flange 002-231
	2.0 26 - 28mm spigot 002-189
	2.5 BN38 - 44mm 002-190
	2.8 VM30 small body 002-191
VM34/39	3.0 002-192
	3.3 002-193
VM28/163	1.0 002-194
	1.2 002-195
	1.5 30 - 44mm spigot 002-196
	1.8 32 - 34mm flange 002-197
	2.0 002-198
	2.5 002-199
VM38/11	3.5 002-200
VM28/511 (viton tip)	1.5 30 - 38mm spigot 002-233
	1.8 Snow OEM applications 002-895
	2.0 30 - 44mm spigot 002-896
VM15/172	1.5 VM18 - 20mm 007-288
	2.0 007-289
35. Main Jet Ring	
VM28/228	28, 40 - 44mm spigot 002-201
VM36/17	30 - 38mm spigot 002-202
35a. Main Jet Washer	
VM20/169	all Mikuni carbs without main jet ring 002-203
VM15/80A	28mm spigot 002-239
36. Main Jet	Pg. 63
4/042 Series	all VM carbs
37. Anchor Plate	
VM15/164	VM26-28 002-205
VM28/79A	VM30-44 002-204

# Mikuni VM Parts

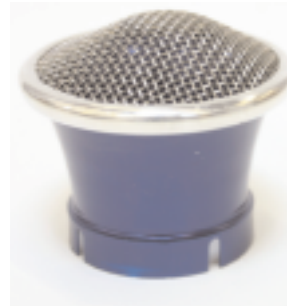
No. Mikuni No.		Order No.
<b>38. Float Bowl Screw</b>		
CW2=0416 (4 x 16)	26 - 28mm spigot	<b>002-823</b>
CW2=0518 (5 x 18)	30 - 44mm	<b>002-719</b>
<b>39. Guide Screw Main Jet Extender</b>		
VM38/09	38mm spigot with N/J #166 & #159	<b>002-207</b>
<b>40. Needle Jet Setter</b>	(holds the needle jet in position)	
VM28/53	26 - 34mm flange	<b>002-209</b>
<b>41. Needle Jet Setter O-Ring</b>		
BV32/04	22 - 34mm flange	<b>002-212</b>
<b>42. Banjo Bolt Washer</b>		
VM26/125	22mm flange	<b>002-213</b>
VM26/124	24 - 34mm flange	<b>002-214</b>
30BIC/35	30mm flange	<b>002-215</b>
<b>43. Banjo Bolt</b>		
VM24/286	22 - 24mm flange	<b>002-216</b>
VM28/61A	26 - 34mm flange	<b>002-217</b>
<b>44. Rubber Mounting Flanges</b>		<b>See Below</b>

## Velocity Stack for Mikuni VM 30,32,34



Improves air flow through the carburetor, resulting in more power at all RPM ranges. Some carburetor modification is required to mount these velocity stacks.

	Order No.
VM30	<b>005-260</b>
VM32	<b>005-261</b>
VM34	<b>005-262</b>



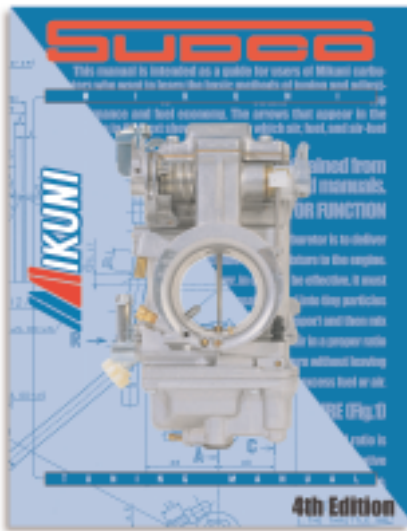
## Max Airflow Velocity Stacks with Screen

Designed for the special needs of Off-Road, Supermotard, Road Racing and Shifter Racers. These smooth, precision machined bored velocity stacks produce optimum air pressure, improving the maximum air flow to the carburetor. Choose from anodized blue or polished chrome. Available for Mikuni and Keihin carburetors listed. Sold each.

Carb Brand	Type/Size Carb	OEM Ref. (Bell Size)	Anodized Blue	Chrome Polished
Mikuni	VM18mm	32mm	<b>005-263B</b>	<b>005-263C</b>
Mikuni	VM/TM20-22/24/26/28mm	44mm	<b>005-264B</b>	<b>005-264C</b>
Kehin/Mikuni	PE/TM/VM30/32/34MM	58mm	<b>005-265B</b>	<b>005-265C</b>
Kehin/Mikuni	TMX/PE/TM/VM27-38mm	62mm	<b>005-266B</b>	<b>005-266C</b>
	36/38mm			
Mikuni	TM36-68	54mm	<b>005-267B</b>	<b>005-267C</b>
Mikuni	HS42, HS45, HS48	65mm	<b>005-268B</b>	<b>005-268C</b>
Mikuni	HS40-6	56mm	<b>005-269B</b>	<b>005-269C</b>

## Priming Nozzle (VM34/181)

**007-690** For oil injection



## Sudco Mikuni Tuning Manual

This 92 page manual includes exploded views, parts listings, optional parts, and guides you through tuning techniques for the popular lines of Mikuni Carburetors. The definite reference for Mikuni Carburetors. A must for any do-it-yourself type.

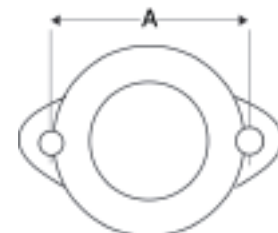
Order No. **002-999**

## Mikuni Rubber Mounting Flanges

Sold each. Made in Japan

Diagram and Dimensions (mm)

Order No.	Mikuni No.	8.5mm bolt Hole Center (A)	Carb Bore Size	Carb Spigot Diameter (I)	Flange Throat Depth (G)	Typical Carb Size
<b>002-050</b>	I-VM28-200-1	60	30	35	28	26-28
<b>002-051</b>	VM30-288-1	57.2	30	37	23	26-28
<b>002-052</b>	VM32/205	75	34	40	32	30-34
<b>002-053</b>	VM34/200-1	60	36	40	25	30-34
<b>002-054</b>	I-VM36-200-1	70	40	43	25	36-40
<b>002-055</b>	I-VM38/200-1	74.6	38	43	28	36-38
<b>002-056</b>	I-VM40-200-1	75	46	52	32	40-44
<b>002-057</b>	I-VM44-200-1	84	46	52	25.5	40-44
<b>002-986</b>	KHS-004	70-75	40	43	28	36-40
<b>007-460</b>	HS42/18-42	70-75	42	45	25	42
<b>007-461</b>	HS42/018-45	70-75	45	48	25	45
<b>007-467</b>	HS42/062-48	70-75	48	52	25	48

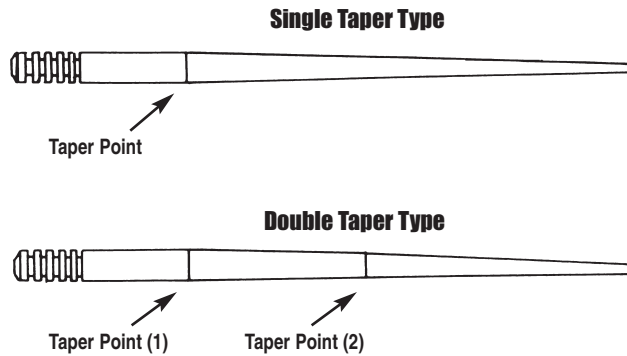




## Jet Needles

The Jet Needle controls the fuel mixture in the mid-range (1/4-3/4) throttle position. The taper of the needle determines the amount of fuel. For example: the thinner the diameter of the needle, the more fuel will be drawn. The thicker the diameter of the needle, the less fuel will be drawn.

## Two Types of needles



## Needle Taper Diameter Dimension Chart

D-1 through D-5 indicates diameter (mm) at each point.

	A	B	D-1	D-2	D-3	D-4	D-5
4E1	50.3	28.0	2.515	2.515	2.345	2.127	1.924
4DH7	50.3	23.0	2.518	2.518	2.386	2.098	1.790
4J13	50.2	24.0	2.513	2.513	2.230	1.800	1.40
4L6	50.3	24.5	2.515	2.515	2.178	1.660	1.190
4J11	41.5	21.3	2.512	2.506	2.188	1.776	

D-1 through D-6 indicates diameter (mm) at each point.

	A	B	D-1	D-2	D-3	D-4	D-5	D-6
5F3	58.0	27.4	2.519	2.519	2.419	2.135	1.863	
5EJ11	60.3	28.5	2.515	2.515	2.241	1.839	1.420	
5FL11	60.3	28.2	2.518	2.518	2.438	2.175	1.740	1.256
5FL14	58.0	28.0	2.520	1.520	2.440	2.170	1.735	
5FL7	58.0	28.0	2.518	2.518	2.440	2.170	1.735	
5DP7	57.6	26.4	2.512	2.512	2.440	2.259	1.580	
5J6	58.0	27.5	2.518	2.518	2.340	1.890	1.450	
5L1	58.0	27.0	2.518	2.518	2.330	1.811	1.297	
5J9	58.0	27.0	2.522	2.520	1.432	1.996	1.505	

D-1 through D-6 indicates diameter (mm) at each point.

	A	B	C	D-1	D-2	D-3	D-4	D-5	D-6
6F5	62.3	38.1	19.0	2.515	2.456	2.454	2.364	2.098	1.840
6F4	62.3	32.0	19.4	2.515	2.442	2.436	2.206	1.939	1.678
6F8	62.3	34.0	21.5	2.512	2.512	2.386	2.214	1.945	1.688
6F16	64.6	31.2	18.4	2.520	2.404	2.400	2.201	1.941	1.679

## Needle Taper Diameter Dimension Chart

(a)=Needle Length (mm)

(b)=Length between points (x) and the taper point (Y)

1=10mm

2=20mm

3=30mm

4=40mm

5=50mm

D-1, -2, -3, -4, -6 are the actual taper diameters at those given points in millimeters

## Series Type

## Application

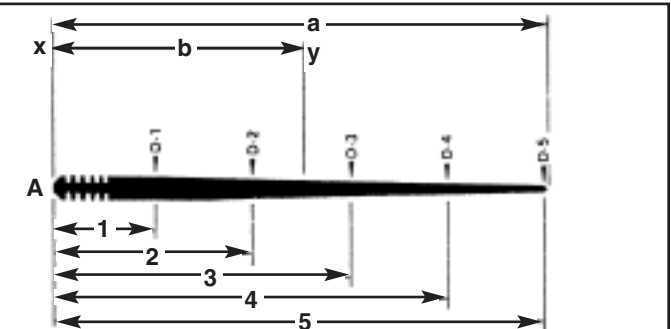
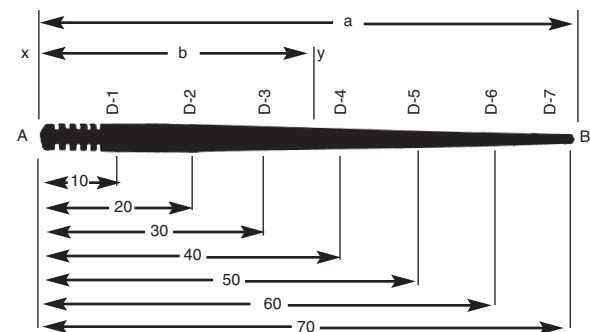
#4	All 18mm Carburetors 22mm and 24mm flange
#5	26 - 32mm spigot 28 - 34mm flange
#6	30 - 38mm spigot
#7	40 - 44mm spigot
#9	RS and HS carburetors

D-1 through D-6 indicates diameter (mm) at each point.

	A	B	D-1	D-2	D-3	D-4	D-5	D-6
6DH2	62.3	28.0	2.511	2.511	2.466	2.295	2.000	1.660
6F9	62.3	28.9	2.516	2.516	2.475	2.210	1.949	1.678
6CF1	61.5	29.5	2.512	2.512	2.429	2.240	1.974	1.710
6FJ6	62.3	35.2	2.505	2.505	2.505	2.376	2.040	1.606
6DH3	62.3	22.0	2.512	2.512	2.458	2.286	1.948	1.607
6L1	62.3	37.0	2.512	2.512	2.512	2.335	1.826	1.313
6DP17	62.3	32.1	2.518	2.518	2.518	2.372	1.834	1.141
6N1	62.3	37.0	2.514	2.514	2.514	2.278	1.672	1.058
6DP1	62.3	28.9	2.511	2.511	2.476	2.312	1.748	1.075
6DH4	62.3	25.5	2.520	2.520	2.440	2.258	1.915	1.575
6DH7	62.2	28.5	2.516	2.516	2.505	2.316	2.009	1.688
6DH8	62.2	20.3	2.538	2.538	2.436	2.208	1.827	1.497
6FL14	62.1	26.7	2.538	2.538	2.538	2.233	1.649	1.218
6F15	62.2	19.8	2.535	2.538	2.461	2.208	1.979	1.649
6DP10	62.4	26.5	2.51	2.51	2.44	2.26	1.56	0.89
6F13	64.2	32.8	2.50	2.46	2.46	2.24	1.97	1.70
6DL30	64.7	26.3	2.51	2.51	2.45	2.09	1.66	1.24

D-1 through D-7 indicates diameter (mm) at each point.

	A	B	D-1	D-2	D-3	D-4	D-5	D-6	D-7
7DH5	72.2	27.4	2.98	2.98	2.94	2.78	2.4	2.08	1.72
7F7	72.3	33.1	2.99	2.99	2.99	2.80	2.54	2.28	2.02
7F6	72.3	29.0	3.00	3.00	2.95	2.68	2.41	2.14	1.87
7DH3	72.5	28.1	2.98	2.98	2.96	2.80	2.47	2.11	1.76
7DH2	75.3	31.6	2.99	2.99	2.99	2.84	2.66	2.27	1.92



## Quick Reference Chart for Needle Selection (Average Performance Chart)

**Note:** The following listing of needles are simply the average performance of a needle between 1/4 and 3/4 throttle opening. Needles are constructed such that a given point on a needle, (for example, at 3/4 throttle opening), the needle may be found to perform richer at this given point when compared to the same given point on another needle, but according to the average performance chart, the needle should perform leaner.

**For example:**

average Performance chart

**Leaner**



**Richer**



At **D-5 (A)**, the taper diameter is 1.915, at **D-5 (b)**, the taper is 2.040; the taper diameter at **D-5 (A)** is smaller than **D-5 (B)**. At this given point of throttle opening (3/4), needle **6DH4** will run slightly richer than **6FJ6**, but the average performance will still be that **6DH4** will be a leaner needle because it will perform leaner at more given points than a **6FJ6**. Consequently, if you are concentrating on a specific throttle opening for competition use, be certain to check the taper diameter at that point of throttle opening.

For a more detailed and comprehensive explanation of the various needles as to their taper diameters at given points, see **NEEDLE TAPER DIAMETER DIMENSION CHARTS**.

**THE QUICK REFERENCE CHART FOR NEEDLE SELECTION** was prepared by measuring the needles as to their diameter at given points. Given points are 10mm apart from each other.

By computing the different measurements and arranging them in order of taper thickness or thinness, three categories for application of needles were determined.

**Category I - Competition.**

For example, motocross racing and desert racing where mid-range throttle operation is vital.

**Category II - Racing.**

For example, Road racing, where 3/4 to full throttle operation is vital.

**Category III - Overall.**

For example, Street riding, where the full range of throttle operation is required.

## Needle #4 Series

		Competition	Racing	Overall
Leaner	1	4D8	4P3	4P3
	2	4DH7	4D8	4D8
	3	4DG6	4D3	4D3
	4	4P3	4F10	4DG6
	5	4D3	4DG6	4DH7
	6	4F6	4F6	4F10
	7	4F10	4DH7	4F6
	8	4F15	4F15	4F15
	9	4E14	4E1	4E1
	10	4J13	4L13	4L13
	11	4L6	4J11	4J13
	12	4L13	4J13	4J11
Richer	13	4J11	4L6	4L6

## Needle #5 Series (A)

		Competition	Racing	Overall
Leaner	1	5D6	5C4	5C4
	2	5D120	5D6	5D6
	3	5C4	5D5	5D5
	4	5EJ13	5D120	5D120
	5	5J9	5D1	5F18
	6	5F18	5F18	5D1
	7	5DP7	5F16	5EJ13
	8	5FL14	5FJ9	5F3
	9	5F3	5F3	5EH7
	10	5EH7	5EJ13	5FJ9
	11	5FL	5EH7	5DP
	12	5D5	5DH21	5FL14
	13	5E13	5FL14	5FL7
	14	5L1	5FL7	5E13
	15	5J6	5E13	5F16
	16	5D1	5DP7	5DH21
	17	5FJ9	5J9	5J9
	18	5F16	5J6	5J6
	19	5DH21	5L1	5L1
Richer	20	5F12	5F12	5F12

## Needle #5 Series (B)

Longer (leaner) than #5 series (A); see **NEEDLE TAPER DIAMETER DIMENSION CHART (b)**

		Competition	Racing	Overall
Leaner	1	5EP8	5DP2	5DP2
	2	5EJ11	5DL13	5DL13
	3	5EL9	5EJ11	5EJ11
	4	5FL11	5EL9	5EL9
	5	514	5EP8	5EP8
	6	5DL13	5FL11	5FL11
Richer	7	5DP2	514	514

## Flatslide Carburetors

Order No.	Jet Needle No.	Application	Needle Diameter before Taper (mm)	Air Fuel Ratio
002-713	6FJ41	TM36, TM38 Flatslide	2.522	Leaner
002-349	6FM46	39 Pro Series, 41 Pro Series	2.522	
002-712	6FJ40	39 Pro Series, 41 Pro Series	2.522	
002-341	6DP4	39 Pro Series, 41 Pro Series	2.515	Richer
007-077	6EJ12-60	TMX38 Flatslide	2.60	Leaner
007-076	6EJ12-59	TMX38 Flatslide	2.59	
007-075	6EJ12-58	TMX38 Flatslide	2.58	
007-074	6EJ12-57	TMX38 Flatslide	2.57	
007-073	6EJ12-56	TMX38 Flatslide	2.56	
007-072	6EJ12-55	TMX38 Flatslide	2.55	
007-071	6EJ12-54	TMX38 Flatslide	2.54	
007-070	6EJ12-53	TMX38 Flatslide	2.53	Richer
007-056	6EN11-58	TMX35 Flatslide	2.58	Leaner
007-055	6EN11-57	TMX35 Flatslide	2.57	
007-054	6EN11-56	TMX35 Flatslide	2.56	
007-053	6EN11-55	TMX35 Flatslide	2.55	
007-052	6EN11-54	TMX35 Flatslide	2.54	
007-051	6EN11-53	TMX35 Flatslide	2.53	
007-050	6EN11-52	TMX35 Flatslide	2.52	
007-049	6EN11-51	TMX35 Flatslide	2.51	Richer
007-088	6GDY12-59	TMS38-77, 78 125cc	2.59	Leaner
007-087	6GY12-58	TMS38-77, 78 125cc	2.58	
007-086	6GY12-57	TMS38-77, 78 125cc	2.57	
007-085	6GY12-56	TMS38-77, 78 125cc	2.56	Richer
007-048	6DGY04-60	TMS38-77, 78 250cc	2.60	Leaner
007-047	6DGY04-59	TMS38-77, 78 250cc	2.59	
007-046	6DGY04-58	TMS38-77, 78 250cc	2.58	
007-045	6DGY04-57	TMS38-77, 78 250cc	2.57	
007-044	6DGY04-56	TMS38-77, 78 250cc	2.56	
007-043	6DGY04-55	TMS38-77, 78 250cc	2.55	
007-042	6DGY04-54	TMS38-77, 78 250cc	2.54	Richer
007-035	9DZH01 STD	RS34-36	2.50	Leaner
007-037	9DZH03	RS34-36	2.49	
007-038	9DZH04	RS34-36	2.48	Richer
007-020	9CHY03 STD	RS38-40	2.99	Leaner
007-022	9CHY05	RS38-40	2.98	
007-023	9CHY06	RS38-40	2.97	Richer
007-015	9DJY01 STD	HS40	2.97	Leaner
007-017	9DJY03	HS40	2.96	
007-016	9DJY02	HS40	2.95	Richer
007-018	9DJY04	HS40		
007-083	8DDY01-98	HSR42	2.98	Leaner
007-082	8DDY01-97 STD	HSR42	2.97	
007-081	8DDY01-96	HSR42	2.96	
007-080	8DDY01-95	HSR42	2.95	Richer
007-103	8CFY02-98	HSR45/48	2.95	Leaner
007-102	8CFY02-97 STD	HSR45/48	2.96	
007-101	8CFY02-96	HSR45/48	2.97	
007-100	8CFY02-95	HSR45/48	2.98	Richer
007-105	9EBY1-50	TM36-68		Leaner
007-106	9EBY1-51	TM36-68		Richer

(When using these needles, the use of a larger pilot jet may be required.)

## VM, TM, and RS

### 4 Series

Order No.	Mikuni No.
002-243	4D10
002-244	4D20
002-245	4DH7
002-246	4DH11
002-247	4DH22
002-251	4EJ4
002-254	4F15
002-256	4J11
002-257	4J13
002-258	4L6

### 5 Series

Order No.	Mikuni No.
002-268	5DL31
002-271	5DP7
002-272	5DP10
002-273	5DP39
002-279	5EL9
002-281	5F3
002-283	5F12
002-287	5F21
002-291	5FL14
002-297	5L1
007-001	5FP17
007-002	5N13
007-003	5J11
002-280	5EP6
002-267	5DI20
002-292	5FP8
007-004	5FP96

### 6 Series

Order No.	Mikuni No.
002-299	6DH2
002-300	6DH3
002-301	6DH4
002-302	6DH7
002-303	6DH8
002-340	6DJ30
002-304	6DP1
002-341	*6DP4
002-309	6DP17
002-312	6F4
002-313	6F5
002-314	6F8
002-315	6F9
002-316	6F13
002-317	6F15
002-318	6F16
002-319	6F21
002-321	6FJ6
002-712	*6FJ40
002-713	*6FJ41
002-324	6FL14
002-344	6FL25
002-325	6J1
002-327	6L1
002-349	*6FM46
002-328	6N1

\*For TM36, TM38 and Pro-Series

### 7 Series

Order No.	Mikuni No.
002-332	7DH2
002-336	7DH3
002-345	7DH5
002-334	7E1
002-329	7F6
002-333	7F7

### 9 Series

Order No.	Mikuni No.
<b>RS34-36</b>	
007-035	9DZH01
007-037	9DZH03
007-038	9DZH04
<b>RS38-40</b>	
007-020	9CHY03
007-022	9CHY05
007-023	9CHY06

Series Type	Application
#4	All 18mm Carburetors 22 - 24mm Flange
#5	26 - 32mm Spigot 28 - 34mm Flange
#6	30 - 38mm Spigot
#7	40 - 44mm Spigot



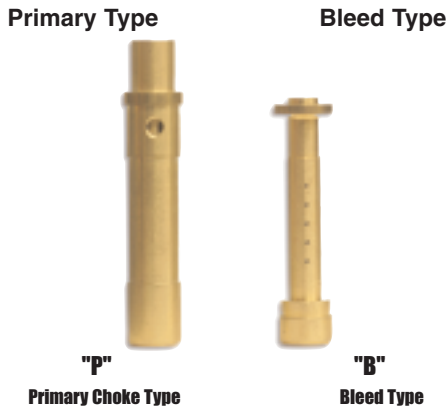
### Sudco Carburetor Needle Shims (12 pc. package)

Order No.	Description
009-395	Most Mikuni 106" Inner Diameter x .250 Outer Diameter x .020 (.5mm) thick
009-396	Most Keihin 126" Inner Diameter x .275 Outer Diameter x .020 (.5mm) thick

## Needle Jets

The needle jet is the main fuel passage to the main bore (venturi) of the Mikuni carburetor. Depending on the inside diameter of a specific needle jet, this will also affect the function of the needle. Therefore, needle jets and needles act together as the main system in controlling the amount and mixture of the fuel which is drawn in mid-range (1/4 - 3/4) throttle operation.

## Two Basic Types of Needle Jets



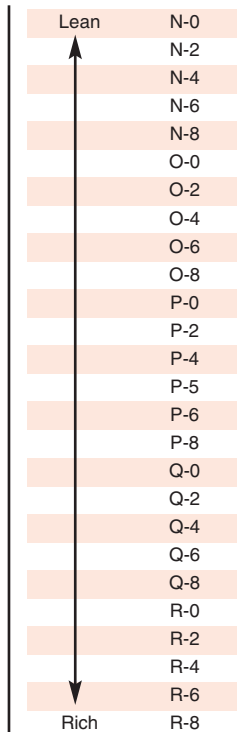
On the following application chart, it is noted that certain needle jets require a specific type of main jet because there are two types of main jets (4/042 & N100/604) that have different fuel flow rate characteristics. Also, needle jets are available not only in types, but series and sizes. Mikuni series numbers for style of the needle jet. Their sizes (inside diameter size) within each series are listed according to a letter-number combination. The letter shows the inside diameter size in increments of .50mm.

For example, the difference between P-2 and Q-2 is that the inside diameter of needle jet size Q-2 is .0050mm greater than P-2.

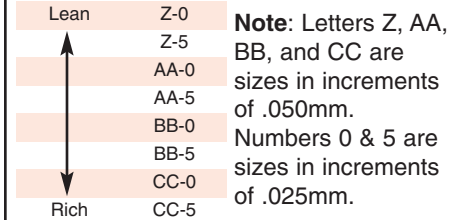
The number shows the inside diameter size in increments of .0010mm.

For example, the difference between P-2 and P-4 is that the inside diameter of needle jet size P-4 is .0010mm greater than P-2.

Exception: (-5) is measured as an increment increase of .005mm. For example, the difference between P-4 and P-5 is that the inside diameter of needle jet size P-5 is .005mm greater than P-4.



## For Mikuni Series #224



Series Size	Type	Carb Application
159	O-0 thru R-8	P 30 - 36mm Spigot
166	O-0 thru R-8	P 38mm Spigot
169	N-0 thru Q-8	P 28, 30mm small body
171	O-0 thru Q-8	P 30mm Flange
172	O-0 thru Q-8	P 28mm Flange
175	N-0 thru Q-8	B 28mm Spigot
176	N-0 thru Q-8	B 30 - 36mm Spigot
182	N-0 thru Q-8	P 26mm Spigot
188	O-0 thru Q-8	P 32mm Flange, Kawasaki
192	N-0 thru O-8	P 26mm Flange
193	N-0 thru O-8	P 24mm Flange
205	O-0 thru Q-8	P 34mm Flange
211	N-0 thru Q-8	P Kaw KR250/350/750
224	Q-5-CC-5	P 40 - 44mm Spigot
235	O-0 thru Q-8	P 30mm Flange
247	P & Q only	P Yam 250, YZ400, IT400
258	O & P only	B Yam TT, SR, XT500 Suz DR, SP, GS550, GS750/850 Kawasaki KZ650/1000
261	N-8 thru Q-8	B VM29 and VM33 Smoothbore
389	O-0 thru R-8	P TM32, 34, 36, 38, 41Pro and Flat-Slide
499	P-2 thru Q-4	B TM33 Flat Slide Smoothbore
568	O-6 thru P-8	P RS34, 36 Smoothbore
568	Y-0 thru Z-6	P RS38, 40 Smoothbore

## Mikuni Needle Orifice Diameters

	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9
N	2.550	2.555	2.560	2.565	2.570	2.575	2.580	2.585	2.590	2.595
O	2.600	2.605	2.610	2.616	2.620	2.625	2.630	2.635	2.640	2.645
P	2.650	2.655	2.660	2.665	2.670	2.675	2.680	2.686	2.690	2.695
Q	2.700	2.705	2.710	2.715	2.720	2.725	2.730	2.735	2.740	2.745

# Mikuni Needle Jets

Exhaust

Chemicals

Intake

Control

Suspension

Engine

Electrical

Vintage

Tools

Watercraft

Series	159	166(=480)	169(=172)	171	175	176(=270)	182	183	
N-0			003-249	003-271		003-324	003-352	003-372	Lean
N-2			003-250	003-272		003-325	003-353	003-373	
N-4	003-200		003-251	003-273				003-374	
N-6			003-252	003-274			003-355	003-375	
N-8	003-202		003-253	003-275			003-356	003-376	
O-0	003-203	003-227	003-254	003-276		003-329	003-357	003-377	
O-2	003-204	003-228	003-255	002-277		003-330	003-358	003-378	
O-4	003-205	003-229	003-256	002-278		003-331	003-359	003-379	
O-5	003-543	003-545	003-257						
O-6	003-206	003-230	003-258		003-307	003-333		003-381	
O-8	003-207	003-231	003-259	003-280	003-308	003-334	003-361	003-382	
P-0	003-208	003-232	003-260	003-281	003-309		003-362	003-383	
P-2	003-209	003-233	003-261	003-282	003-310	003-336	003-363	003-384	
P-4	003-210		003-262	003-283	003-311	003-337		003-385	
P-5	003-211	003-235	003-263		003-312				
P-6	003-212	003-236	003-264	003-284	003-313	003-339	003-365	003-386	
P-8	003-213	003-237	003-265	003-285	003-314	003-340	003-366	003-387	
Q-0	003-214	003-238	003-266	003-286			003-367	003-388	
Q-2	003-215	003-239	003-267	003-287			003-368	003-389	
Q-4	003-216	003-240	003-268	003-288			003-369	003-390	
Q-5	003-217	003-546							
Q-6	003-218	003-241	003-269	003-289			003-370	003-391	
Q-8	003-219	003-242	003-270	003-290			003-371	003-392	
R-0	003-220	003-243		003-291					
R-2	003-221	003-244							
R-3									
R-4	003-223	003-245							
R-5	003-224	003-246							
R-6	003-225	003-247							
R-8	003-226	003-248							Rich

Series	188	192	193	196	205	211	
N-0						003-474	Lean
N-2						003-475	
N-4						003-476	
N-6						003-477	
N-8			003-428			003-478	
O-0				003-439	003-457	003-479	
O-2	003-394	003-413		003-440	003-458	003-480	
O-4	003-395			003-441	003-459	003-481	
O-5				003-442	003-460		
O-6			003-432	003-443	003-461	003-482	
O-8	003-398		003-433		003-462	003-483	
P-0	003-399	003-419	003-434		003-463	003-484	
P-2		003-420	003-435		003-464	003-485	
P-4		003-421	003-436		003-465	003-486	
P-5				003-448			
P-6		003-422	003-437		003-466	003-487	
P-8	003-404	003-423	003-438	003-450	003-467	003-488	
Q-0				003-451	003-468	003-489	
Q-2				003-452	003-469	003-490	
Q-4					003-470	003-491	
Q-5				003-454	003-471		
Q-6					003-472	003-492	
Q-8					003-473	003-493	Rich

Series	723 (HSR)	
Y-2	003-685	Lean
Y-4	003-686	
Y-6	003-687	
Y-8	003-688	
Z-0	003-689	Rich

Series	640 (TM33)	
P-4	003-698	Lean
P-6	003-699	
P-8	003-700	
Q-0	003-701	
Q-2	003-702	Rich

Series	633 (Honda, Kawasaki TMX)	
S-4	003-720	Lean
S-7	003-722	
S-8	003-723	
S-9	003-724	Rich

Series	247	258	389	261	499	640	
O-0		003-522	003-570				Lean
O-2		003-523	003-571	003-533			↑ ↓
O-4		003-524	003-572	003-534			
O-5							
O-6		003-525	003-573	003-535			
O-8		003-526	003-574	003-536			
P-0	003-510	003-527	003-575	003-537			
P-2	003-511	003-528	003-576	003-538	003-606		
P-4	003-512	003-529	003-577	003-539		003-698	
P-5	003-513						
P-6	003-514	003-530	003-578			003-699	
P-8	003-515	003-531	003-579	003-549	003-609	003-700	
Q-0	003-516		003-580		003-610	003-701	
Q-2	003-517		003-581		003-611	003-702	
Q-4	003-518		003-582		003-612		
Q-5	003-519						
Q-6	003-520		003-583				
Q-8	003-521		003-584				
R-0	003-553		003-585				
R-2	003-554		003-586				
R-4	003-555		003-587				
R-6	003-556		003-588				
R-8	003-557		003-589				Rich

Series	568 (RS38-40/HS40)	
Y-0	003-663	Lean
Y-2	003-664	↑ ↓
Y-4	003-665	
Y-6	003-666	
Y-8	003-667	
Z-0	003-668	
Z-2	003-669	
Z-4	003-670	
Z-6	003-671	

Series	568 (RS34-36)		
O-6	003-650	Lean	
O-8	003-651	↑ ↓	
P-0	003-652		
P-2	003-653		
P-4	003-654		
P-6	003-655		
P-8	003-656		Rich

Series	224 (VM44/10)		
Z-0	003-495	Lean	
Z-5	003-496	↑ ↓	
AA-0	003-497		
AA-5	003-498		
BB-0	003-499		
BB-5	003-500		
CC-0	003-501		
CC-5	003-502		Rich

Series	454 (TM24)	
P-8	003-679	Lean
Q-0	003-680	Rich



**Coming Soon Limited Edition with Serial Number, Mokato Tamada, and Loris Capirossi Helmet Optical Mouse**

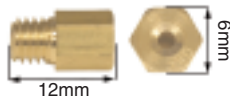
**Simpson Helmet Optical Mouse**

- 1/5 scale model helmet with official logo.
- Optical 800 d.p.i mouse with right/ leftclick and scrolling function.
- Detachable USB cable
- Works with most Windows (98 or later), and Mac OS

Color	Order No.
Pearl	949-055P
Red	949-055R
Yellow	949-055Y

Exhaust  
Chemicals  
Intake  
Control  
Suspension  
Engine  
Electrical  
Vintage  
Tools  
Watercraft

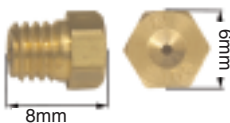
## Large Hex 4/042



**Applications:** Large Hex -fits needle jets, 159, 166, 176, 183, 188, 192, 193, 205, 211, 224, Honda CR125R, CR250R '00-07, Kawasaki KX125 '01-05, Suzuki RM125 '01-07, Yamaha YZ125 '95-05, RD350/RD400 and many 2 stroke ATV and Off-Road.

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-070	50	004-088	140	004-110	260	004-129	440
004-071	55	004-089	145	004-111	270	004-130	450
004-072	60	004-090	150	004-112	280	004-131	460
004-073	65	004-091	155	004-113	290	004-132	470
004-074	70	004-092	160	004-115	300	004-133	480
004-075	75	004-093	165	004-116	310	004-134	490
004-076	80	004-094	170	004-117	320	004-135	500
004-077	85	004-095	175	004-118	330	004-139	540
004-078	90	004-100	180	004-119	340	004-141	560
004-079	95	004-101	185	004-120	350	004-143	580
004-080	100	004-102	190	004-121	360	004-145	600
004-081	105	004-103	195	004-122	370	004-146	620
004-082	110	004-104	200	004-123	380	004-147	640
004-083	115	004-105	210	004-124	390	004-149	660
004-084	120	004-106	220	004-125	400	004-150	680
004-085	125	004-107	230	004-126	410	004-151	700
004-086	130	004-108	240	004-127	420	004-153	720
004-087	135	004-109	250	004-128	430		

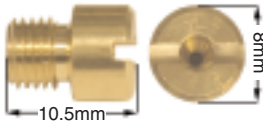
## Small Hex M10/14



**Applications:** Small Hex -fits Kawasaki early rotary valve 2 stroke singles, Yamaha 2 stroke singles (small bore)

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-224	50	004-232	90	004-240	130	004-248	170
004-225	55	004-233	95	004-241	135	004-249	175
004-226	60	004-234	100	004-242	140	004-250	180
004-227	65	004-235	105	004-243	145	004-251	185
004-228	70	004-236	110	004-244	150	004-252	190
004-229	75	004-237	115	004-245	155	004-253	195
004-230	80	004-238	120	004-246	160	004-254	200
004-231	85	004-239	125	004-247	165		

## Large Thread VM11/22

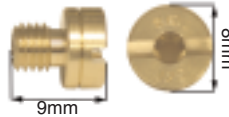


**Applications:** Large Thread

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-740	50	004-749	72.5	004-758	100	004-767	145
004-741	52.5	004-750	75	004-759	105	004-768	150
004-742	55	004-751	77.5	004-760	110	004-769	155
004-743	57.5	004-752	80	004-761	115	004-770	160
004-744	60	004-753	82.5	004-762	120	004-771	165
004-745	62.5	004-754	85	004-763	125	004-772	170
004-746	65	004-755	87.5	004-764	130	004-773	175
004-747	67.5	004-756	90	004-765	135	004-774	180
004-748	70	004-757	95	004-766	140		

for watercraft jets see pg. 520

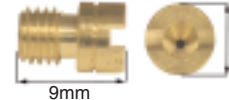
## Large Round N100.604



**Applications:** Large Round - fits needle jets 171, 188, 196 Kawasaki/H1-500 (all), H2-750 (all), Z1/KZ900/1000/1100 street, Suzuki GS450/500/600/650/750/850/1000/1100/1150 Yamaha XS350/400/750/1100 and many 2 & 4 stroke street, ATV and Off-Road

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-160	50	004-177	92.5	004-194	135	004-211	177.5
004-161	52.5	004-178	95	004-195	137.5	004-212	180
004-162	55	004-179	97.5	004-196	140	004-213	182.5
004-163	57.5	004-180	100	004-197	142.5	004-214	185
004-164	60	004-181	102.5	004-198	145	004-215	187.5
004-165	62.5	004-182	105	004-199	147.5	004-216	190
004-166	65	004-183	107.5	004-200	150	004-217	192.5
004-167	67.5	004-184	110	004-201	152.5	004-218	195
004-168	70	004-185	112.5	004-202	155	004-220	200
004-169	72.5	004-186	115	004-203	157.5	004-222	205
004-170	75	004-187	117.5	004-204	160	004-223	210
004-171	77.5	004-188	120	004-205	162.5	004-350	220
004-172	80	004-189	122.5	004-206	165	004-351	230
004-173	82.5	004-190	125	004-207	167.5	004-352	240
004-174	85	004-191	127.5	004-208	170		
004-175	87.5	004-192	130	004-209	172.5		
004-176	90	004-193	132.5	004-210	175		

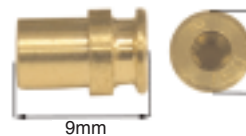
## Small Round N102/221



**Applications:** Small Round - fits needle jets 171, 188, 196 Kawasaki KXF400, Suzuki DRZ400 with Mikuni carb, LTZ400, SV650, Yamaha YFM660 Raptor

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-333	30	004-275	75	004-293	120	004-311	165
004-334	32.5	004-276	77.5	004-294	122.5	004-312	167.5
004-335	35	004-277	80	004-295	125	004-313	170
004-336	37.5	004-278	82.5	004-296	127.5	004-314	172.5
004-337	40	004-279	85	004-297	130	004-315	175
004-338	42.5	004-280	87.5	004-298	132.5	004-316	177.5
004-339	45	004-281	90	004-299	135	004-317	180
004-340	47.5	004-282	92.5	004-300	137.5	004-318	182.5
004-255	50	004-283	95	004-301	140	004-319	185
004-256	52.5	004-284	97.5	004-302	142.5	004-320	187.5
004-267	55	004-285	100	004-303	145	004-321	190
004-268	57.5	004-286	102.5	004-304	147.5	004-323	195
004-269	60	004-287	105	004-305	150	004-325	200
004-270	62.5	004-288	107.5	004-306	152.5		
004-271	65	004-289	110	004-307	155		
004-272	67.5	004-290	112.5	004-308	157.5		
004-273	70	004-291	115	004-309	160		
004-274	72.5	004-292	117.5	004-310	162.5		

## Press In N208.099



**Applications:** Press- In -fits Ducati Late model CV Yamaha CV & YZF750

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-700	110	004-707	127.5	004-714	145	004-724	170
004-701	112.5	004-708	130	004-715	147.5	004-726	175
004-702	115	004-709	132.5	004-716	150		
004-703	117.5	004-710	135	004-718	155		
004-704	120	004-711	137.5	004-719	157.5		
004-705	122.5	004-712	140	004-720	160		
004-706	125	004-713	142.5	004-722	165		



## VM22/210



**Applications:** VM, TM, TMX,  
Kawasaki, Suzuki, Yamaha, 2 stroke, and  
some 4 stroke

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-000	10	004-007	27.5	004-012	50	004-067	85
004-001	12.5	004-008	30	004-013	55	004-068	90
004-002	15	004-009	32.5	004-014	60	004-069	95
004-003	17.5	004-009	35	004-015	65	004-090	100
004-004	20	004-094	37.5	004-016	70	004-091	110
004-005	22.5	004-010	40	004-017	75	004-092	120
004-006	25	004-011	45	004-018	80		

## VM28/213



**Applications:**  
Kawasaki Z1/A-900 '73-74

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-019	15	004-021	20	004-023	25	004-025	35
004-020	17.5	004-022	22.5	004-024	30	004-026	40

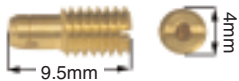
## VM28/486



**Applications:** RS, HSR, HS,  
Kawasaki Z1A/B-900 '74-75,  
KZ900/1000 '76-80,  
Suzuki GS750/1000 '78-79  
Yamaha TTR125

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-556	10	004-031	22.5	004-035	35	004-052	47.5
004-027	12.5	004-032	25	004-055	37.5	004-038	50
004-028	15	004-033	27.5	004-036	40	004-560	55
004-029	17.5	004-034	30	004-051	42.5	004-561	60
004-030	20	004-557	32.5	004-037	45	004-562	65

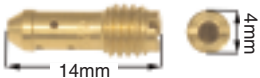
## M28/1001



**Applications:**  
Yamaha YSR50 (all), YFS200 Blaster (all),  
RZ350 '84-85, YZF350 Banshee (all),  
2 stroke

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-039	15	004-041	25	004-043	35	004-047	55
004-050	17.5	004-596	27.5	004-044	40	004-049	65
004-040	20	004-042	30	004-045	45		
004-595	22.5	004-597	32.5	004-046	50		

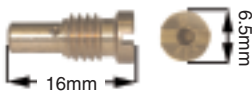
## BS30/96



**Applications:** Bleed Type, (with bleed  
holes) OEM CV Carbs,  
Kawasaki, Suzuki, Yamaha

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-054	30	004-058	40	004-062	50	004-066	60
004-055	32.5	004-059	42.5	004-063	52.5		
004-056	35	004-060	45	004-064	55		
004-057	37.5	004-061	47.5	004-065	57.5		

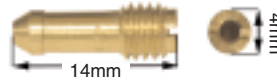
## N101.043



**Applications:** VM, TM, TMX,  
Kawasaki, Suzuki, Yamaha, 2 stroke, and  
some 4 stroke

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-501	30	004-510	52.5	004-518	72.5	004-526	92.5
004-503	35	004-511	55	004-519	75	004-527	95
004-504	37.5	004-512	57.5	004-520	77.5	004-528	97.5
004-505	40	004-513	60	004-521	80	004-529	100
004-506	42.5	004-514	62.5	004-522	82.5	004-531	105
004-507	45	004-515	65	004-523	85	004-533	110
004-508	47.5	004-516	67.5	004-524	87.5		
004-509	50	004-517	70	004-525	90		

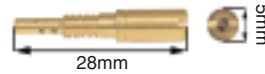
## O.E.M / N151.067



**Applications:** (no bleed holes) OEM CV  
late model Carbs,  
Kawasaki KZ1000J/K/M/P/R, KZ1100,  
Suzuki GS1000/1100,  
Yamaha XS1100

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-605	30	004-609	40	004-613	50	004-617	60
004-606	32.5	004-610	42.5	004-614	52.5		
004-607	35	004-611	45	004-615	55		
004-608	37.5	004-612	47.5	004-616	57.5		

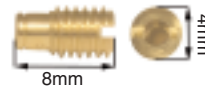
## TMX36/ N224.103



**Applications:** OEM TMX36, OEM BDSR,  
Honda CR125R/CR250R '00-07,  
Kawasaki KFX400, KX125 '01-05,  
Suzuki RM125 '01-07, LTZ400,  
Yamaha YZ125 '95-07, YFM350 Raptor,  
YFM660 Raptor, YZF-R1

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-580	10	004-566	25	004-572	40	004-575	55
004-581	12.5	004-567	27.5	004-584	42.5	004-576	60
004-582	15	004-568	30	004-573	45	004-577	65
004-583	17.5	004-569	32.5	004-585	47.5	004-578	70
004-564	20	004-570	35	004-574	50		
004-565	22.5	004-571	37.5	004-586	52.5		

## Air Jets BS30/97

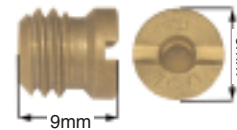


**Applications:** 26 thru 44mm Spigot

Meters the air flow through the passage to and into the needle jet. It acts as a fine tuning component in regulating the fuel-air mixture. This is especially important when a bleed type needle jet is used.

Order No	Size	Order No	Size	Order No	Size	Order No	Size
002-149	0.0	002-154	0.9	002-159	1.4	002-164	1.9
002-150	0.5	002-155	1.0	002-160	1.5	002-165	2.0
002-151	0.6	002-156	1.1	002-161	1.6		
002-152	0.7	002-157	1.2	002-162	1.7		
002-153	0.8	002-158	1.3	002-163	1.8		

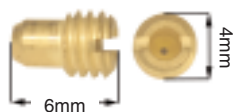
## B42/55



**Applications:** OEM CV, Pilot Air Jet and  
Main Air Jet for OEM Suzuki Carbs,  
Suzuki GS1000/1100 '80-82  
Yamaha XS1100 '80-81

Order No	Size	Order No	Size	Order No	Size	Order No	Size
004-640	70	004-652	130	004-661	175	004-674	240
004-642	80	004-653	135	004-662	180	004-676	250
004-644	90	004-654	140	004-663	185	004-678	260
004-646	100	004-655	145	004-664	190	004-680	270
004-647	105	004-656	150	004-665	195	004-682	280
004-648	110	004-657	155	004-666	200	004-684	290
004-649	115	004-658	160	002-668	210	004-686	300
004-650	120	004-659	165	004-670	220		
004-651	125	004-660	170	004-672	230		

## Starter Jet VM 17/1002



**Applications:** TM32 - 38mm

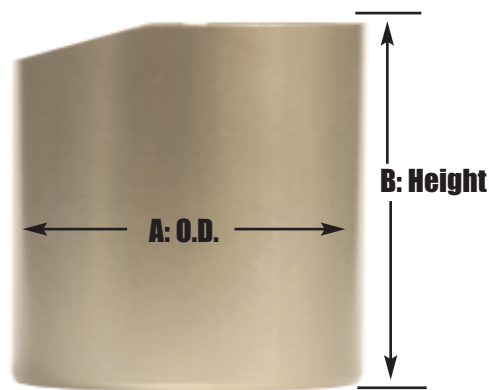
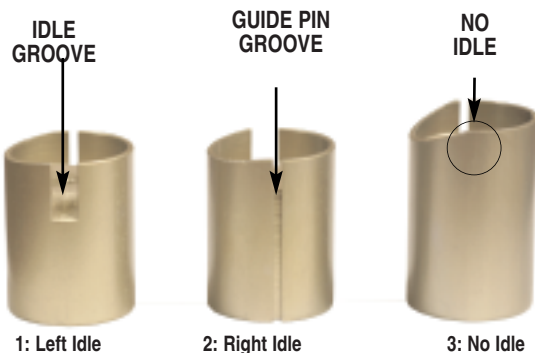
Order No	Size	Order No	Size	Order No	Size
004-402	20	004-410	60	004-418	100
004-406	40	004-414	80		

# Mikuni VM Throttle Valves

## Throttle Valve (slide)

The throttle valve affects the air-fuel mixture ratio between 1/8 and 1/2 throttle, and especially between 1/8 and 1/4 throttle.

### Three Types of Throttle Valves:



Throttle valve comes in various sizes called cutaway. The larger the cutaway (size), the leaner the fuel mixture. The smaller the cutaway (size), the richer the fuel mixture. Sizes 3.5 to 0.5.

Order No	Mikuni No	Cutaway	Composition	Idle Groove Position	Guide Pin Position	Guide Pin Groove Type	Dimension	Width	Application
003-009	VM28/56	1.0	Brass	Left	Right	Narrow	A=30mm	2.05	26 & 28 Spigot
003-010		1.5					B=33.5mm		
003-011		2.0							
003-012		2.5							
003-022	VM28/19	2.0	Aluminum		Right	Narrow		2.05	28 Clamp on
003-025		3.5							
003-026	VM28/80	0.5	Aluminum	Left	Right	Narrow	A=31.5mm	2.05	24 & 30 Flange
003-027		1.0					B=40.5mm		28 Clamp on
003-029		2.0							
003-030		2.5							
003-032		3.5							
003-033	VM28/81	0.5	Aluminum	Right	Left	Narrow	A=31.5mm	2.05	28 & 30 Flange
003-034		1.0					B=40.5mm		28 Clamp on
003-035		1.5							
003-036		2.0							
003-038		3.0							
003-039		3.5							
003-040	VM28/90	1.5	Aluminum		Right	Narrow	A=31.5mm	2.05	24 & 30 Flange
003-052	VM28/210	1.0	Aluminum		Right	Narrow	A=31.5mm	1.98	Z1, 1972-74
003-055		2.5							
003-056		3.0							
003-057	VM28/490	1.0	Aluminum		Right	Narrow	A=31.5mm	1.98	Z1, KZ900
003-058		1.5					B=47.5mm		
003-059		2.0							
003-060		2.5							
003-063	VM30/120	2.5	Brass	Left	Right	Narrow	A=31.5mm	2.05	28 & 30 Flange
003-172		3.5					B=40.5		28 Clamp on
003-065	VM32/06	1.0	Aluminum		Right	Narrow	A=35.5	2.05	20, 32, 34 Spigot
003-066		1.5					B=37.5mm		32 & 34 Flange
003-070	VM32/22	0.5	Aluminum	Left	Right	Narrow	A=35.5	2.05	30, 32 34 Spigot
003-075		3.0					B=40.5		
003-082	VM32/23	3.5	Aluminum	Right	Left	Narrow	A=35.5	2.05	30, 32, 34 Spigot
003-084	VM32/65	2.0	Brass	Right	Left	Wide	A=35.5mm	2.60	30, 32, 34 Spigot
003-085		2.5					B=40mm		
003-086		3.0							

# Mikuni VM Throttle Valves

Order No	Mikuni No	Cutaway	Composition	Idle Groove Position	Guide Pin Position	Guide Pin Groove Type	Dimension	Width	Application
003-088	VM30/176	1.5	Brass	Left	Right	Wide	A=31.5mm	2.05	30 Small Body
003-089		2.0					B=44.5mm		Spigot
003-090		2.5							
003-091		3.0							
003-098	VM34/110	1.0	Brass	Left	Right	Wide	A=35.5mm	2.60	30, 32, 34 Spigot
003-099		1.5					B=40.5mm		32 & 34 Flange
003-100		2.0							
003-101		2.5							
003-102		3.0							
003-103		3.5							
003-177	VM34/354	2.0							
003-178		2.5							
003-104	VM36/13	0.5	Brass	Left	Right	Narrow	A=38mm	2.05	36 Spigot
003-105		1.0					B=46mm		
003-106		1.5							
003-109		3.0							
003-110		3.5							
003-116	VM36/18	3.5	Brass	Right	Left	Narrow		2.05	36 Spigot
003-121	VM36/26	3.5	Brass	Left	Right	Narrow	A=38mm	2.60	36 Spigot
							B=46mm		
003-123	VM36/36	1.0	Brass	Left	Right	Wide	A=38mm	3.05	36 Spigot
003-124		1.5					B=45.5mm		
003-125		2.0							
003-126		2.5							
003-127		3.0							
003-128		3.5							
003-179	VM36/39	1.0	Brass	Right	Left	Wide	A=38mm	3.05	36 Spigot
003-182		2.5					B=45.5mm		
003-199	VM36/113	1.5							
003-195		2.0							
003-130	VM38/02	1.0	Brass	Right	Left	Wide		2.05	38 Spigot
003-186		3.0							
003-187		3.5							
003-140	VM38/10	3.5	Brass	Left	Right	Narrow		2.05	38 Spigot
003-188	VM38/22	0.5							
003-189		1.0							
003-190		1.5							
003-191		2.5							
003-192		3.0							
003-143	VM38/24	1.5	Brass	Right	Left	Wide	A=39.5mm	3.05	38 Spigot
003-144		2.0					B=45mm		
003-145		2.5							
003-146		3.0							
003-147		3.5							
003-149	VM38/52	2.0	Brass	Left	Right	Wide	A=39.5mm	3.05	38 Spigot
003-150		2.5					B=45mm		
003-151		3.0							
003-196	VM38/76	1.5							
003-197		3.0							
003-154	VM40/02	1.0	Aluminum	Left	Right	Wide	A=46mm	3.05	40 & 44 Spigot
003-155		1.5					B=55.5mm		
003-156		2.0							
003-157		2.5							
003-158		3.0							
003-162	VM44/23	1.5	Brass	Left	Right	Wide	A=46mm	3.05	40 & 44mm
003-163		2.0					B=56mm		
003-164		2.5							
003-165		3.0							
003-166		3.5							