



Primary Type

Bleed Type



Two Basic Types of Needle Jets

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 effect the function of the needle. Therefore, needle jets and jet 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.

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 Large Hex & N100.604 Large Round) 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. There 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 .050mm. For

example, the difference between P-2 and Q-2 is that the inside diameter of needle jet size Q-2 is .050mm greater than P-2.

The number shows the inside diameter size in increments of .005mm. For example, the difference between P-2 and P-4 is that the inside diameter of needle jet size P-4 is .01mm 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.

Needle Jet Orifice Diameters

Size	-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

Needle Jets

Lean to Rich

Chart

N-0
N-2
N-4
N-6
N-8
O-0
O-2
O-4
O-5
O-6
O-8
P-0
P-2
P-4
P-5
P-6
P-8
Q-0
Q-2
Q-4
Q-5
Q-6
Q-8
R-0
R-2
R-4
R-6

Lean

Rich

224 Series Needle Jet

Note: Letters Z, AA, BB and CC are sizes in increments of .050mm. Numbers 0 and 5 are sizes in increments of .025mm.

Size	#224 (VM44/10) Series
Z-0	003-495
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

Lean

Rich

723 Series Needle Jet

Size	723 Series
Y-2	003-685
Y-4	003-686
Y-6	003-687
Y-8	003-688
Z-0	003-689

Lean

Rich

Needle Jet Series

Series	Size	Type	Carb Application
159	N-4 thru R-8	P	VM30 - VM36mm Spigot
166(=480)	O-0 thru R-8	P	VM38mm Spigot
169(=172)	O-0 thru R-8	P	VM28 - VM30mm small body
171	N-0 thru Q-8	P	VM30mm Flange
175	N-0 thru Q-8	B	VM28mm Spigot, TM28 Flat
176(=270)	N-0 thru Q-8	B	VM30 - VM36mm Spigot
182	N-0 thru Q-8	P	VM26mm Spigot
183	N-0 thru Q-8	B	
188	O-2 thru P-8	P	VM32 Flange, Kawasaki
192	N-0 thru Q-8	P	VM26 Flange
193	N-0 thru Q-8	P	VM24 Flange
196	O-0 thru Q-5	P	
205	O-0 thru Q8	P	VM34mm Flange
211	N-0 thru Q-8	P	Kawasaki KR250/350/750
224	Z-0 thru CC-5	P	VM40 - VM44mm Spigot
247	P & Q only	P	Yamaha early YZ250, YZ400, IT400
247	P-0 thru R-8	P	
258	O & P only	B	Kawasaki KZ650/1000 w/VM carbs, Suzuki DR, SP, GS550,GS750/850 Yamaha SR500, TT500, XT500
258	O-0 thru P-8	B	
261	O-2 thru P-8	B	VM29 & VM33 Smoothbore
332	O-0 only	B	VM26-606 with side choke, Flange
389	Q-0 thru R-8	P	TM32, 34, 36, 38, 41 Pro & Flat Slide
454	P-8 thru Q-0	B	TM24 Flat Slide
499	P-2 thru Q-4	B	TM33 Flat Slide
568	O-6 thru P-8	P	RS34, RS36, TM36
568	Y-O thru Z-6	P	RS38 - RS40, HS40, TM40
633	S-4 thru S-9	P	OEM TMX (Late Style)
Note: 633 Series not shown in chart, see page 191.			
640	P-4 thru Q-2	B	TM33-8012 Flat Slide, Pumper
723	Y-2 thru Z-0	P	HSR42-48 Roller Flat Slide