



## Desmoquattro Valve Adjustment Shim Calculations

Bike: ST4s Mileage: 34,010  
 Owner: Vinnie Date: 2/18/2023

Conversion charts	Value	Converted	
<b>Metric to English</b>	<b>0.100</b>	<b>0.004</b>	inch
<b>English to Metric</b>	<b>0.004</b>	<b>0.102</b>	mm

		Intake Opener shim	Intake Closer shim
<b>Ducati rec</b>  opn.05mm-.18mm clsr.15mm-.25mm	Required for calculations Input recommended shim clearance (LT) <b>All clearances in mm</b>	0.100	0.100
		opn.05mm-.23mm clsr.10mm-.20mm	Exhaust Opener shim
		0.150	0.100

Ducati Spec (mm)	Intake	Opener	0.050	0.160	Exhaust	Opener	0.050	0.160
		Closer	0.100	0.160		Closer	0.100	0.160

Vertical cylinder exhaust valve Left 	Input values in blank cells			Calculated information		
	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim
	Measured gap values	0.102	0.279	Actual GAP values	0.102	0.177
	STEP 2	Opener shim	Closer shim	Recommended shim	2.80	3.15
	Current shim size	2.850	3.070	Estimated clearance with new shim installed	0.10	0.10
STEP 3	Opener shim	Closer shim	Result of step 4	Opener shim	Closer shim	
Actual shim used	2.850	3.150	New actual gap	0.102	0.127	
STEP 4	Unloaded Gap	Loaded Gap				
Measured gap values	0.102	0.229				
Vertical cylinder exhaust valve Right 	Input values in blank cells			Calculated information		
	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim
	Measured gap values	0.127	0.279	Actual GAP values	0.127	0.152
	STEP 2	Opener shim	Closer shim	Recommended shim	2.73	3.15
	Current shim size	2.750	3.100	Estimated clearance with new shim installed	0.027	0.102
STEP 3	Opener shim	Closer shim	Result of step 4	Opener shim	Closer shim	
Actual shim used	2.850	3.150	New actual gap	0.127	0.127	
STEP 4	Unloaded Gap	Loaded Gap				
Measured gap values	0.127	0.254				
Vertical cylinder intake valve Left 	Input values in blank cells			Calculated information		
	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim
	Measured gap values	0.127	0.203	Actual GAP values	0.127	0.076
	STEP 2	Opener shim	Closer shim	Recommended shim	2.977	3.046
	Current shim size	2.950	3.070	Estimated clearance with new shim installed	0.127	0.111
STEP 3	Opener shim	Closer shim	Result of step 4	Opener shim	Closer shim	
Actual shim used	2.950	3.035	New actual gap	0.127	0.102	
STEP 4	Unloaded Gap	Loaded Gap				
Measured gap values	0.127	0.229				
Vertical cylinder intake valve Right 	Input values in blank cells			Calculated information		
	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim
	Measured gap values	0.064	0.305	Actual GAP values	0.064	0.241
	STEP 2	Opener shim	Closer shim	Recommended shim	3.07	2.99
	Current shim size	3.110	2.850	Estimated clearance with new shim installed	0.104	0.081
STEP 3	Opener shim	Closer shim	Result of step 4	Opener shim	Closer shim	
Actual shim used	3.070	3.010	New actual gap	0.102	0.152	
STEP 4	Unloaded Gap	Loaded Gap				
Measured gap values	0.102	0.254				



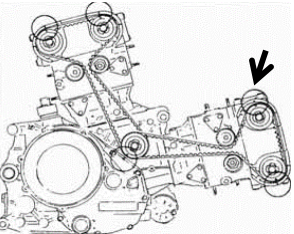
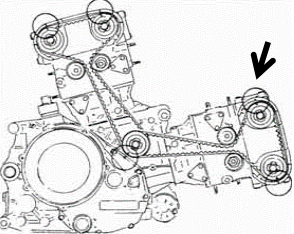
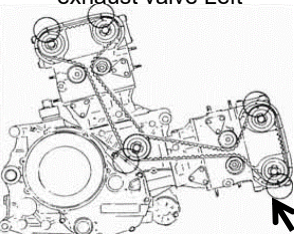
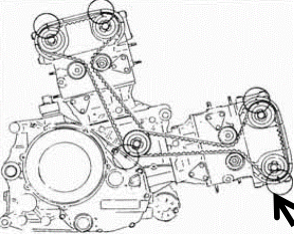
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<b>English to Metric</b>	<b>0.004</b>	<b>0.102</b>	mm

		Intake Opener shim	Intake Closer shim
<b>Ducati rec</b> opn.05mm-.18mm clsr.15mm-.25mm	Required for calculations Input recommended shim clearance (LT) <b>All clearances in mm</b>	0.100	0.100
		Exhaust Opener shim	Exhaust Closer shim
		0.150	0.100

Ducati Spec (mm)	Intake	Opener	0.050	0.160	Exhaust	Opener	0.050	0.160
		Closer	0.100	0.160		Closer	0.100	0.160

	Input values in blank cells			Calculated information		
Horizontal cylinder intake valve Left 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.127	0.305	Actual GAP values	0.127	0.178
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.03	3.05
	Current shim size	3.000	2.970	Estimated clearance with new shim installed	0.127	0.098
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.127	0.127
	Actual shim used	3.000	3.050	New actual gap	0.127	0.127
	<b>STEP 4</b>	Unloaded Gap	Loaded Gap			
	Measured gap values	0.127	0.254			
Horizontal cylinder intake valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.127	0.279	Actual GAP values	0.127	0.152
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.03	3.05
	Current shim size	3.000	3.000	Estimated clearance with new shim installed	0.127	0.202
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.127	0.127
	Actual shim used	3.000	2.950	New actual gap	0.127	0.127
	<b>STEP 4</b>	Unloaded Gap	Loaded Gap			
	Measured gap values	0.127	0.254			
Horizontal cylinder exhaust valve Left 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.127	0.203	Actual GAP values	0.127	0.076
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.777	3.096
	Current shim size	2.800	3.120	Estimated clearance with new shim installed	0.127	0.096
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.102	0.127
	Actual shim used	2.800	3.100	New actual gap	0.102	0.127
	<b>STEP 4</b>	Unloaded Gap	Loaded Gap			
	Measured gap values	0.102	0.229			
Horizontal cylinder exhaust valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.076	0.203	Actual GAP values	0.076	0.127
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.78	3.13
	Current shim size	2.850	3.100	Estimated clearance with new shim installed	0.116	0.127
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.102	0.127
	Actual shim used	2.810	3.100	New actual gap	0.102	0.127
	<b>STEP 4</b>	Unloaded Gap	Loaded Gap			
	Measured gap values	0.102	0.229			