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FORK REBOUND GOLD VALVE INSTALLATION - DIRT 24mm '10 KAW

<IP FRGV 2402.doc> **FRGV 2402** P Thede © 2.4.14 2 pgs

TOOLS REQUIRED: In addition to the tools required for disassembly and assembly. TFHP 01 Holding Tool, TFSH 10 Shaft Holding Tool, Hi-strength Loctite (included), 400 grit (very fine) or finer Sandpaper.

CAUTION: THIS PROCEDURE SHOULD ONLY BE DONE BY A QUALIFIED SUSPENSION TECHNICIAN. IF YOU ARE NOT FAMILIAR WITH THIS PROCEDURE, STOP! CONTACT RACE TECH OR A QUALIFIED SUSPENSION TECHNICIAN.

DISASSEMBLY

1 **Disassemble the forks** and remove the cartridge.

2 **Remove the compression valve**. If you are installing compression Gold Valves at this time, follow the instructions for installation included in the kit.

3 **Remove the rebound rod from the cartridge.**

4 When the damping rod is removed from the cartridge extreme care must be taken so the thread (which is often razor sharp) does not cut the shaft seal. Carefully deburr both ends of the thread and pack the thread with grease.

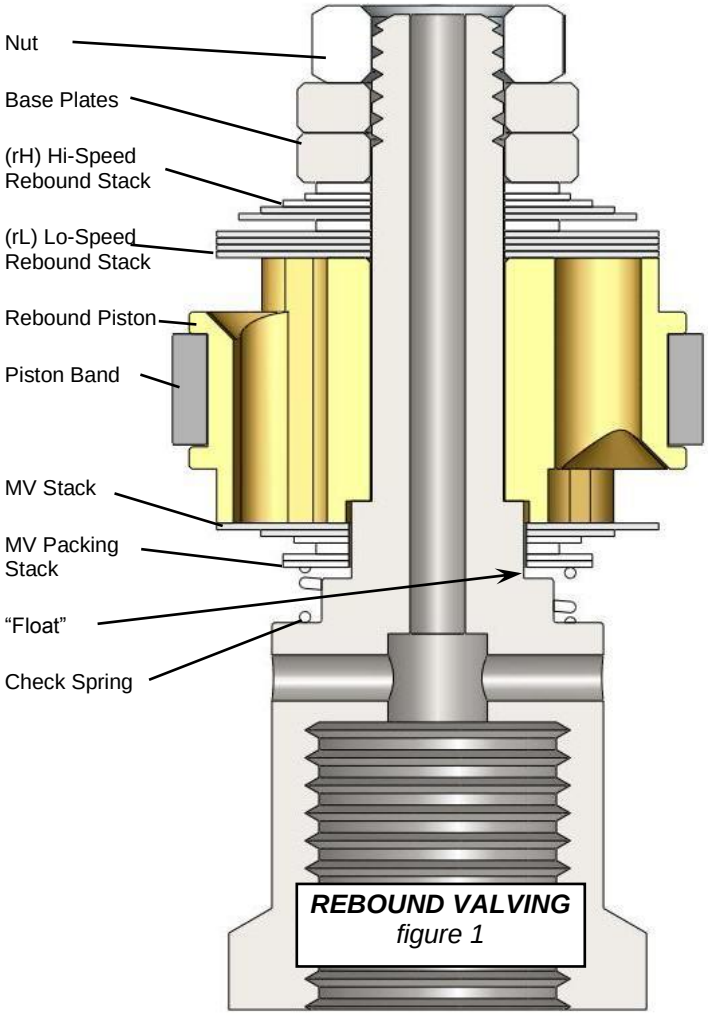
5 **Once the rod is removed lightly file the peening off the end of the shaft that holds on the nut.** Remove the nut and **disassemble the valving stack.** Lightly deburr the end of the thread.

VALVING

6 Select the Rebound and Mid-Valve Valving. Begin **assembling the Rebound Gold Valve**. Starting with the Special Cupped Washer, Check Spring, MV Packing Stack and Mid-Valve Stack. There are two critical components of the Mid-Valve; the stiffness of the Mid-Valve Stack and the "Float". The Float is controlled by a combination of the thicknesses of the MV Stack and the MV Packing Stack.

7 Install the Rebound Gold Valve with the recess toward the Mid-Valve Stack.

8 Select the Rebound Valving Stack. Continue assembly. Install the Low Speed Rebound Valving Stack, High Speed Rebound Valving Stack, Base Plate and Nut. Use Loctite and torque the nut to 30 in-lbs (0.35 kgf-m).



REBOUND VALVING
figure 1

ASSEMBLY

9 **Reinstall the rod** into the cartridge being careful not to damage the shaft seal. Make sure there are no burrs on the thread and pack the thread with heavy grease before you insert it into the cartridge. Screw the Jam Nut onto the end of the Shaft all the way.

10 **Fill and bleed the cartridge. Set the oil level inside the cartridge to the recommended level (note – this level is more than the cartridge requires, excess will be drained off.)** Install the compression assembly and compress the damping rod completely. Pour out excess oil above the reservoir piston.

11 **Reassemble the forks**. Install the Fork Spring. Install the Cartridge and temporarily screw in the fork cap. Invert the fork and place the cap on the floor on a soft surface so the cap will not be damaged. Compress the fork so the

Damping Rod extends through the bottom of the fork and slide the TFHP 01 Holding Tool between the Jam Nut and the Fork Bottom.

12 Use Loctite on the damping rod thread at the Rebound Adjuster. **Insert the Rebound Adjusting Rod into the Damping Rod** making sure it goes in all the way and registers on the Needle inside. There are two types; Showa – "D" Shaped Rod and KYB/WP Round Rod.

The Showa "D" Shaped Rod requires special attention. Slide the "D" Shaped drive rod on the Adjuster Bolt into the Rod. When you screw on the Adjuster Bolt, hold the Adjusting Screw in one place with a screwdriver. This will keep the "D" Shaped Rod from rounding out.

For the KYB/WP Round Rods back out the adjuster on the Adjuster Bolt before installing it on the Rod.

13 ***Torque the jam nut to manufacturers specs*** (typically 16 to 21 ft-lbs [21.7 – 28.5 NM). Consult shop manual for specs. Remove the Holding Tool and tighten the Adjuster Bolt into the Fork Bottom.

14 Unscrew the Fork Cap and add the proper oil volume to the outer chamber (consult the DVS at racetech.com for your specific bike). **Tighten the fork cap**.

15 **Set the compression and rebound adjustments** to the recommendation. This should be a good starting point. Enjoy!

Rebound Valving Selection Chart

DIRT 24mm FRGV 2402

Welcome to the wonderful world of Gold Valving. **To obtain your personal Custom Suspension Settings:**

1. **Log on to www.racetech.com**
2. **Go to Digital Valving Search (DVS)**
3. **Input your Access Code when prompted (on top of page 1)**
4. **Input your personal specifications**
5. **Print your DVS Custom Suspension Setup Sheet**

If you do not have access to the Internet contact our Technical Support Hotline 951.279.6655 for recommendations. Note: The Access Code is good for one bike, limited-time use.

Once you have your recommended valving settings, build your Mid-Valve Stack.

EXAMPLE:

The **Total Mid-Valve Stack** is MV34 and MVP110.
Starting from the **recessed** Gold Valve piston face:

Mid-Valve Stack – MV34 - .90mm thick

(3) 0.10x20
(1) 0.10x18
(1) 0.10x16
(1) 0.10x14
(1) 0.10x11
(1) 0.20x17

Mid-Valve Packing Stack – MVP110 - 1.10mm thick

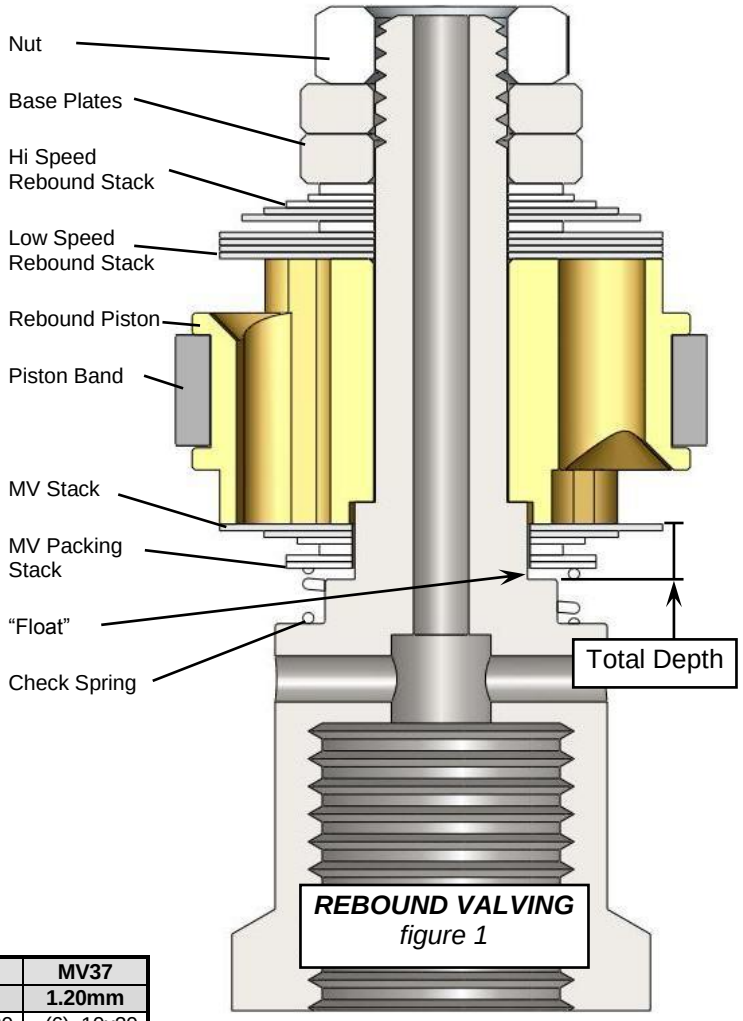
(5) 0.20x14
(1) 0.10x14

In this example the MV Stack is .90mm thick and the MVP Stack is 1.10mm thick for a total stack thickness of 2.00mm.

The Gap is 2.40mm.

Float = Gap – (MV Stack + MVP Stack)

For this example
Float = 2.40 – (.90 + 1.10) = .40mm



REBOUND VALVING
figure 1

MID-VALVE CHART - DIRT 2402

MID-VALVE STACK ***STIFFER →***

	MV32	MV33	MV34	MV35	MV36	MV37
THICKNESS	**.70mm**	**.80mm**	**.90mm**	**1.00mm**	**1.10mm**	**1.20mm**
	(1) .10x20	(2) .10x20	(3) .10x20	(4) .10x20	(5) .10x20	(6) .10x20
	.10x18	.10x18	.10x18	.10x18	.10x18	.10x18
	.10x16	.10x16	.10x16	.10x16	.10x16	.10x16
	.10x14	.10x14	.10x14	.10x14	.10x14	.10x14
	.10x11	.10x11	.10x11	.10x11	.10x11	.10x11
	.20x17	.20x17	.20x17	.20x17	.20x17	.20x17

MID-VALVE PACKING (MVP) STACK ***STIFFER (LESS FLOAT) →***

MVP100	MVP105	MVP110	MVP115	MVP120	MVP125	MVP130	MVP135	MVP140	MVP145	MVP150
THICKNESS 1.00	**1.05mm**	**1.10mm**	**1.15mm**	**1.20mm**	**1.25mm**	**1.30mm**	**1.35mm**	**1.40mm**	**1.45mm**	**1.50mm**
(5) .20x14	(4) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14	(5) .20x14
	(1) .15x14	(1) .10x14	(1) .15x14	(2) .10x14	(1) .15x14	(2) .15x14	(1) .15x14	(2) .15x14	(3) .15x14	(2) .15x14
	(1) .10x14				(1) .10x14		(2) .10x14	(1) .10x14		(1) .10x14

Next build your Rebound Valving Stack.

EXAMPLE:

The **Total Rebound Valving Stack** is rL35 and rH34.
Starting from the **flat** Gold Valve piston face:

Lo-Speed Stack – rL35

(5) 0.10x20
(1) 0.10x12

Hi-Speed Stack – rH34

(1) 0.10x20
(1) 0.10x18
(1) 0.10x14
(1) 0.10x12
(1) 0.10x11
(1) 0.10x10

FORK REBOUND GOLD VALVE CHART - DIRT 24mm

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LO-SPEED REBOUND STACK ***SLOWER →***

rL31	rL32	rL33	rL34	rL35	rL36	rL37*	rL38*	rL39*	rL40*
(1) .10x20	(2) .10x20	(3) .10x20	(4) .10x20	(5) .10x20	(6) .10x20	(7) .10x20	(8) .10x20	(9) .10x20	(10) .10x20
.10x12	.10x12	.10x12	.10x12	.10x12	.10x12	.10x12	.10x12	.10x12	.10x12

HI-SPEED REBOUND STACK ***SLOWER →***

rH31	rH32	rH33	rH34	rH35	rH36	rH37*	rH38*	rH39*	rH40*
(1) .10x20	(1) .10x20	(1) .10x20	(1) .10x20	(1) .10x20	(2) .10x20	(3) .10x20	(4) .10x20	(5) .10x20	(6) .10x20
.10x18	.10x18	.10x18	.10x18	.10x18	.10x18	.10x18	.10x18	.10x18	.10x18
.10x14	.10x14	.10x14	.10x14	.10x16	.10x16	.10x16	.10x16	.10x16	.10x16
.10x9	.10x11	.10x11	.10x12	.10x14	.10x14	.10x14	.10x14	.10x14	.10x14
	.10x9	.10x10	.10x11	.10x12	.10x12	.10x12	.10x12	.10x12	.10x12
			.10x10	.10x11	.10x11	.10x11	.10x11	.10x11	.10x11
				.10x10	.10x10	.10x10	.10x10	.10x10	.10x10

BLEED HOLE (must be drilled if required) ***SLOWER →***

1.9 mm	1.8 mm	1.7 mm	1.6 mm	1.5 mm	1.4 mm	1.3 mm	1.2 mm	1.1 mm	1.0 mm
#48	#50	#51	#52	#53	#54	#55	#56	#57	#60

* SHIMS NOT PROVIDED IN STANDARD KIT (please call) Shim dimensions - (QUANTITY) THICKNESS x DIAMETER in mm

For assistance please contact the Race Tech Technical Support Hotline 951.279.6655.