

# NFF NATURAL FREQUENCY FEEDER OPERATING MANUAL

### Vibration Solutions



The NFF feeders are designed to operate at 600 oscillations per minute, which enable the troughs to be made from light gauge material such as 1.6mm to 2mm steel sheet according to size and length required.

The feeder consists of 4 main areas:

- 1. The Trough complete with auxiliary aids such as screens, covers etc.,
- 2. The Fibreglass Spring Sets,
- 3. The Vibrator c/w the Isolinks,
- 4. The Base Frame.

The Spring Sets consist of number 1 to 4 the same thickness per set 2.5mm, 3mm or 4mm thick <u>fibreglass leaves</u>. Each thickness has a <u>resonant weight</u>, which is the load it can carry to be in resonance at 600 oscillations per minute, therefore requiring minimal power of the vibrator to operate the feeder.

#### **IMPORTANT NOTICE**

Vibrators and vibrating equipment can be dangerous if not used correctly.

- 1. **DO NOT** hold or touch when running.
- 2. **DO NOT** stand or sit on vibratory equipment when running.
- 3. **USE ONLY** for the purpose intended.
- 4. USE ONLY when vibrators are securely mounted.
- 5. USE ONLY when pneumatic hoses and fittings are securely tightened.
- 6. ALWAYS wear ear protectors.

We reserve the right to improve, modify or withdraw specifications or products without notice or obligation.



### **OPERATING AND MAINTENANCE INSTRUCTIONS**

#### Pneumatic supply

- 1. Air supply should be via a suitably sized Filter/ Regulator/ Lubricator unit (FRL) set at max. 6 bar.
- 2. The feeder should be connected and controlled, as close as possible, by an instant acting solenoid or manually operated slide valve enabling good starting.



#### ATTENTION The air must be snapped on to kick start the feeder.

3. Adjustment to the air pressure varies the frequency of the feeder. By fitting a restrictor/ regulator to the exhaust port of the vibrator, the amplitude of the feeder can reduce.

## Normal practice is to set pressure at 6 bar and control the amplitude and therefore the feed-rate by regulating the exhaust port.

#### Maintenance

The vibrator of the feeder requires no maintenance except to ensure the air supply is clean and sufficiently lubricated.

- 1. Run a new feeder for 1 hour and then re-tighten all bolts securing the spring sets to the trough and base. Check the locknuts securing the vibrator.
- 2. Repeat the above regularly, say once a week or once a month according to the amount of hours the feeder runs.
- 3. If the bolts securing the spring sets to the trough and base become loose, they are likely to shear.

SPRING SET ARRANGEMENT	SINGLE LEAF			TWO LEAF			THREE LEAF			FOUR LEAF		
SPRING SET CODE	BA	BB	BC	DA	DB	DC	FA	FB	FC	EA	EB	EC
SPRING CODE	NJ	NK	NL	NJ	NK	NL	NJ	NK	NL	NJ	NK	NL
SPRING THICKNESS DIM "X" mm	2.5	3	4	2,5	3	4	2,5	3	4	2.5	3	4
SPRING LENGTH DIM "Y" mm	220	220	220	220	220	220	220	220	220	220	220	220
RESONANT WEIGHT K/g	0,6	1,05	2,45	1,2	2,1	4,9	1,8	3,15	7,4	2,4	4,2	9,8
M8 BOLT CODE	NO	NO	NO	NC	NC	NC	ND	ND	ND	ND	NE	NF
M8 BOLT LENGTH	55	55	55	65	65	65	70	70	70	70	75	80
RESONANT WEIGHT K/g (600C.P.M)	1.15	1.75	3.6	2.0	3.6	7.6	3.65	6.5	12.2	4.75	7.7	14.7
IMPORTANT USE M8 x 40 HEX HEAD BOLTS TO SECURE SPRING SETS TO FEEDER TROUGH												









M8 NUT & 2off M8 CONTACT WASHERS 46348





SPRING NL 32939



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