

***CROP  
VENTILATION  
SYSTEMS***



## AIRSPEARS .....

West Airspears and fans have been cooling and conditioning crops for over 20 years.

Airspears are 4 inches diameter and 7 ft overall with a 3 ft perforated section and a sharp steel point. Airspears constantly recoup their cost by preserving crops and providing a rapid cure for hot spots.

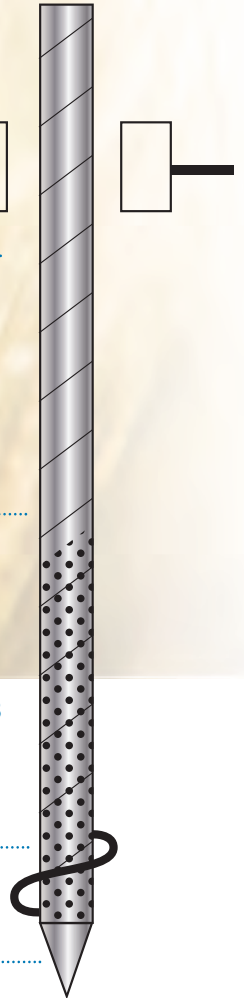


Adjustable handle for ease of operation

Spears are manufactured from spiral wound galvanised steel for strength and corrosion resistance

3 sizes of perforations - 1.8, 2.8 and 12.5 mm diameter to suit different crops such as rape, grain and potatoes

Flight is set at 21° for optimum ease of insertion



## FANS

Two fans are available for Airspears. Both fans run off a standard 13 amp plug, have totally enclosed motors and are sturdily constructed to provide years of safe, trouble free service. The Standard Fan is suitable for grain and potatoes. Rape and small seeds require the Professional Fan.

Fan pressures range from 0.4 to 1.3in water gauge for grain and potatoes. For rape and small seeds the pressures are above 2m. The type of the crop determines the fan pressure and the rate of cooling is determined by the airflow.

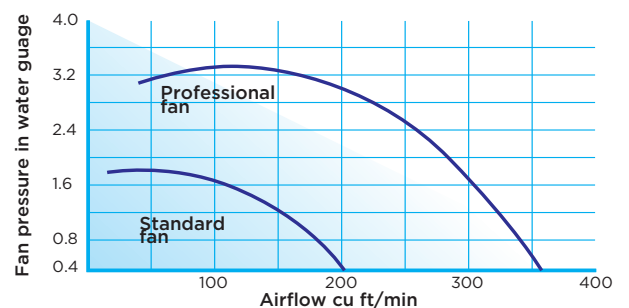
**Standard Fan**  
130Watt motor



**Professional Fan**  
250Watt motor



The graph below shows that for a given pressure the Professional Fan will produce twice the airflow compared with the Standard Fan.





## CONDITIONING COLUMNS

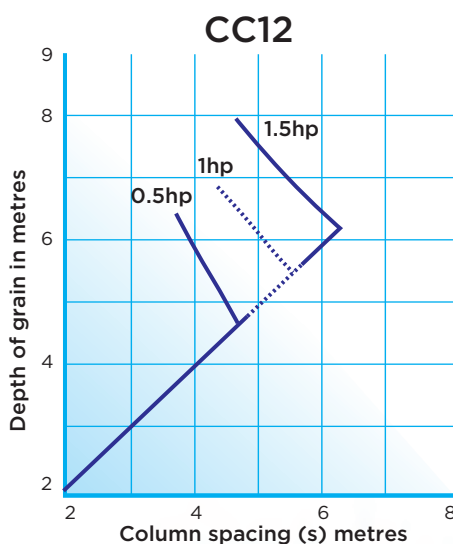
Conditioning columns are a very cost effective and easy to install system for aerating crops in any size or shape of flat floored building, clamp or bay.

Columns are available in 3 diameters to suit different types of crop, crop depth and airflow requirement.



Column product code	Diameter perforated section mm	Height perforated section mm	Diameter feeder tube mm
	D	L	d
CC10	250	900	100
CC12	300	1000	150
CC14	355	1200	200

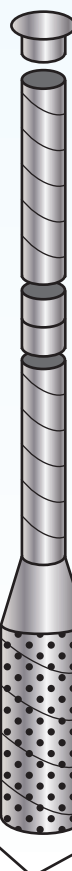
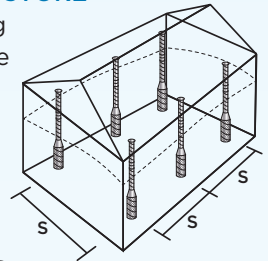
This graph is for grain and does not rely on the use of polythene sheets. Graphs for other sizes and rape and root crops are also available.



### POSITIONING OF COLUMNS IN A STORE

To calculate the maximum spacing between columns and to select the optimum size of column and fan.

1. Estimate the depth of the crop in metres.
2. Find the depth of crop on the vertical scale.
3. Read across to the blue fan lines.
4. The intersections between the horizontal depth line and the fan lines give the maximum spacing (S) for each combination of column and fan.
5. Select the column size and fan which suit the application. *NB The maximum distance between the columns and the wall is  $\frac{1}{2} S$ . M4.*



Cap to seal column when not in use

Extra long coupler

Air feeder tube is supplied in 1 metre lengths so that column height can be increased to match grain depth

3 sizes of perforation 1.8, 2.8 and 12.5 mm diameter to suit different crops e.g. rape, grain and potatoes

Large square base plate provides maximum stability when store is being loaded



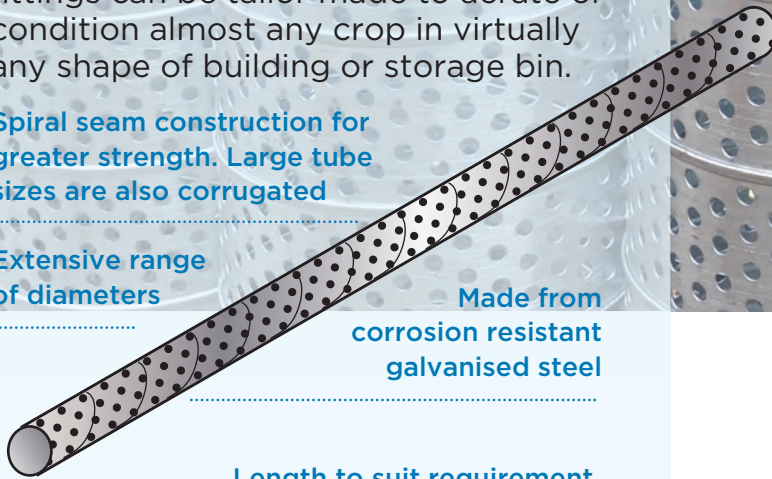
## PERFORATED TUBE .....

Systems of West perforated tube and fittings can be tailor made to aerate or condition almost any crop in virtually any shape of building or storage bin.

**Spiral seam construction for greater strength. Large tube sizes are also corrugated**

**Extensive range of diameters**

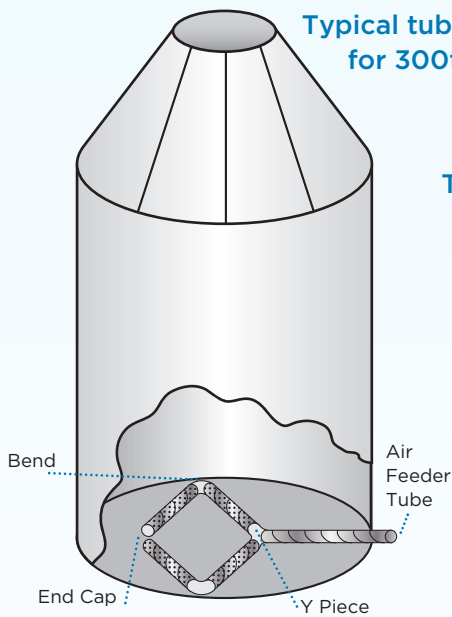
**Made from corrosion resistant galvanised steel**



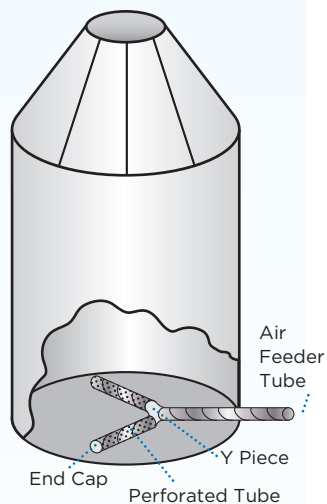
**Length to suit requirement**

**3 sizes of perforation 1.8, 2.8 and 12.5 mm diameter are available**

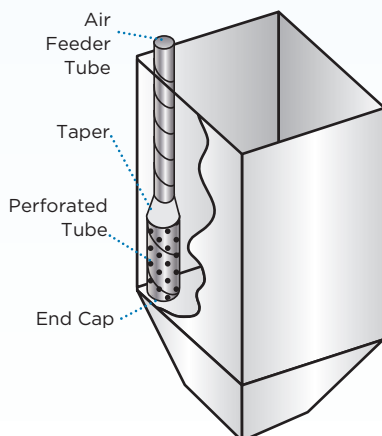
**Typical tube layout for 300t silo**



**Typical tube layout for 100t silo**



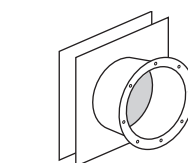
**Typical tube layout for 30t hopper bottom bin**



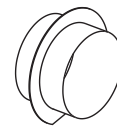
Dia Ins	Grain	Rape Small Seed	Potatoes & Root Crops
Tube Wall Thickness mm			
4	0.8	0.8	0.8
6	0.8	0.8	0.8
8	0.8	0.8	0.8
10	0.8	0.8	0.8
12	0.8, 1.0	0.8, 1.0	0.8, 1.0
14	0.8, 1.0	0.8, 1.0	0.8, 1.0
15	0.8, 1.0	0.8, 1.0	1.0, 1.2
16	1.0, 1.2	1.0	1.0, 1.2
18	1.0, 1.2	1.0	1.0, 1.2
19	1.2	1.0	1.2
20	1.2		1.2
21	1.2		1.2
22	1.2		1.2
24	1.2		1.2
27	1.2		1.2
30	1.2		1.2

This table shows the recommended tube wall thickness in mm for the range of perforated tube diameters.

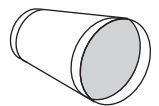
An extensive range of fittings is available to suit all requirements. Illustrated below are some of the most popular tube fittings.



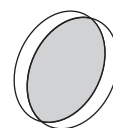
Flanged Wall Plate



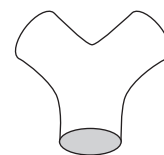
Anti Roll Connector



Flat Bottom Taper



End Cap



Y Piece



Bend 30°, 45°, 50° And 90°



## ..... TUBE & FIXINGS

West manufactures a complete range of tube, ducting and associated fittings designed to match the different demands of a wide variety of applications.

### Wesloc

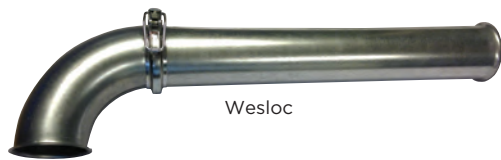
Wesloc is straight seamed, lockformed tube with lipped ends. The lips are secured by clips which results in a joint which has no internal projections against the airflow and is easy and quick to assemble and dismantle. Wesloc is ideal for systems which are likely to change configuration, which need regular cleaning or are used with materials which are prone to blockage.

### Spiroseam

Spiroseam is spirally wound tube with a lock form seam for added strength and rigidity. Spiroseam is the low cost tube for moving air, dust and grain and for blowing meal.

### Helix Weld

Helixweld is heavy duty tube. The seam is a continuous spiral weld which provides great strength and rigidity. Helixweld is ideal for abrasive materials, high pressures and vacuums and systems where high integrity is required.



Wesloc

Spiroseam



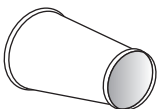
Helix Weld



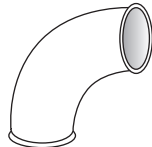
Tube Type	Diameter	Thickness Range	Materials	Joints
WESLOC	80mm to 1250mm	0,8mm to 1,2mm	GALVANISED STEEL STAINLESS STEEL	LIP AND CLIP
SPIROSEAM	80mm to 1500mm	0,6mm to 1,2mm	GALVANISED STEEL STAINLESS STEEL	SOCKET AND SPIGOT FLANGE
HELIXWELD	100mm to 915mm	1,6mm to 6,0mm	CARBON STEEL STAINLESS STEEL	COUPLER FLANGE LIP AND CLIP

## FITTINGS

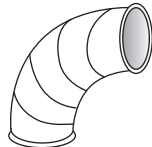
Shown below are examples of fittings from the extensive range available to suit all types of West tube and ducting.



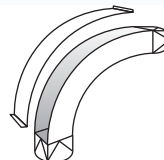
Taper



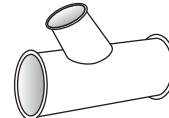
Pressed Bend



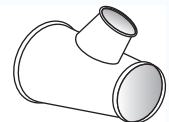
Fabricated Bend



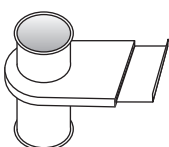
Wear Bend



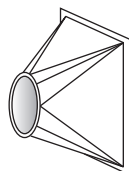
Oblique Tee



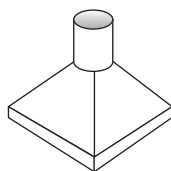
Oblique Tapered Tee



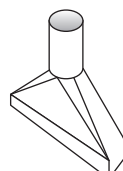
Slide Valve



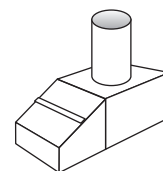
Rectangular To  
Round Transform



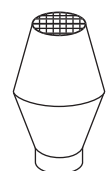
Hood



Fishtail



Sweep Up Point

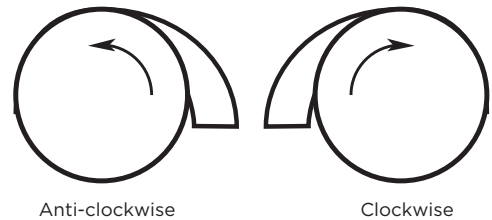
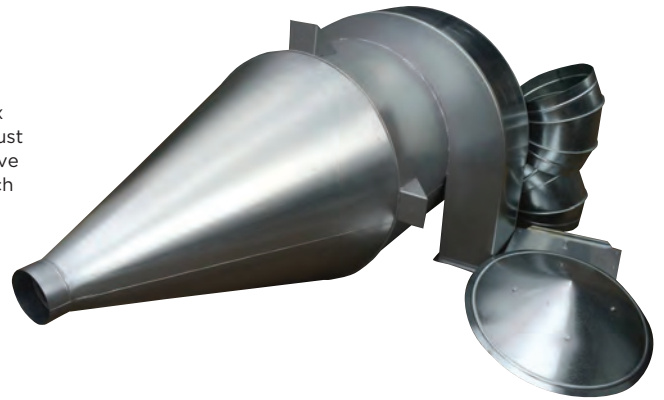
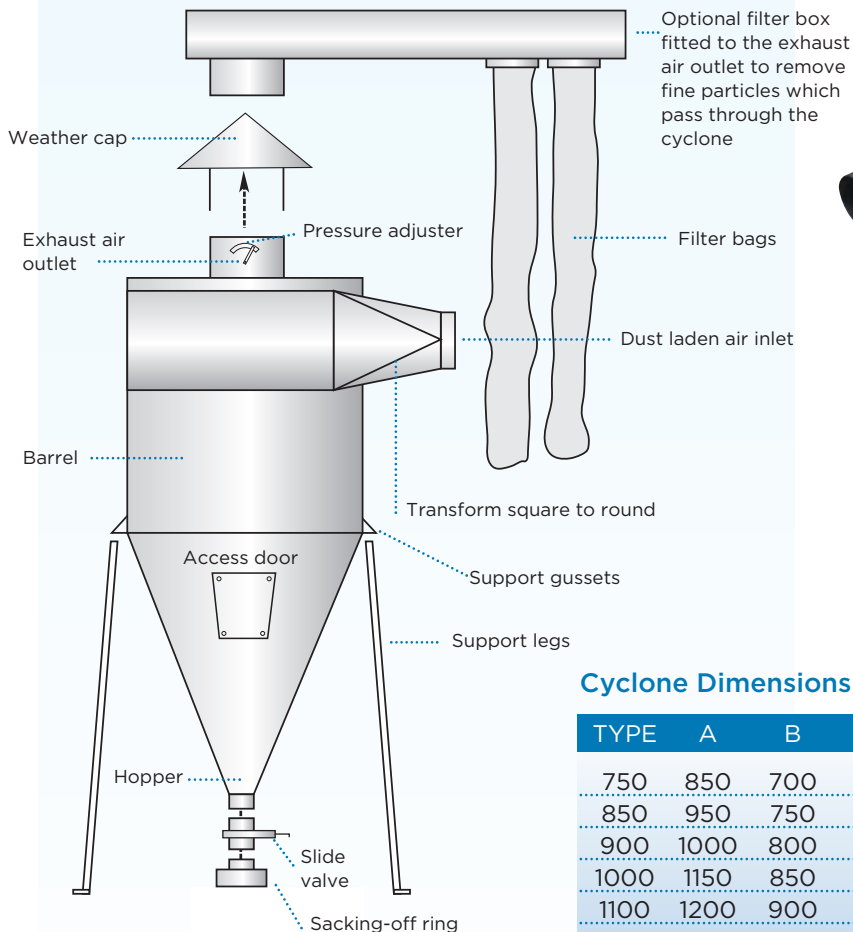


Jet Cowl

## CYCLONES .....

West cyclones are designed to extract dust and particles from an airstream. West cyclones are used extensively with cleaners, driers, aspirators and crop handling machinery.

West cyclones have a specially constructed inlet for increased performance and long tapered hoppers to speed the discharge of materials. West cyclones are made from galvanised steel and are sized to suit each application. West cyclones are rugged and long lasting.

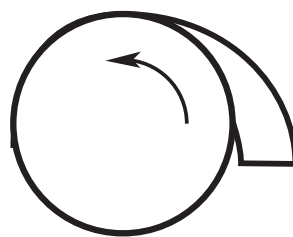
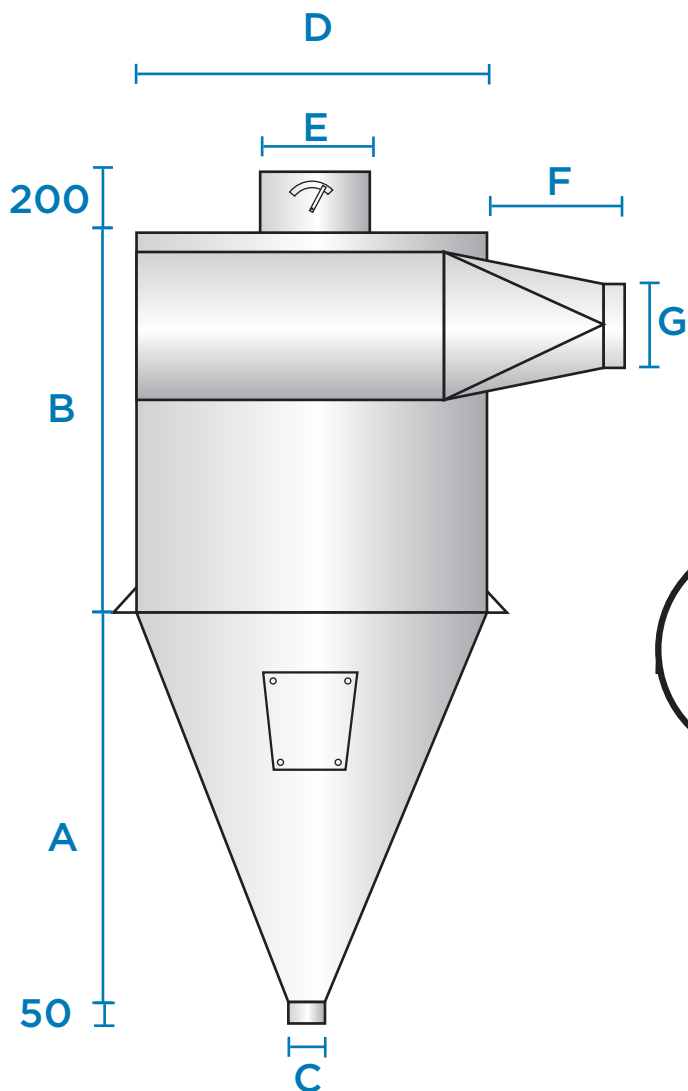
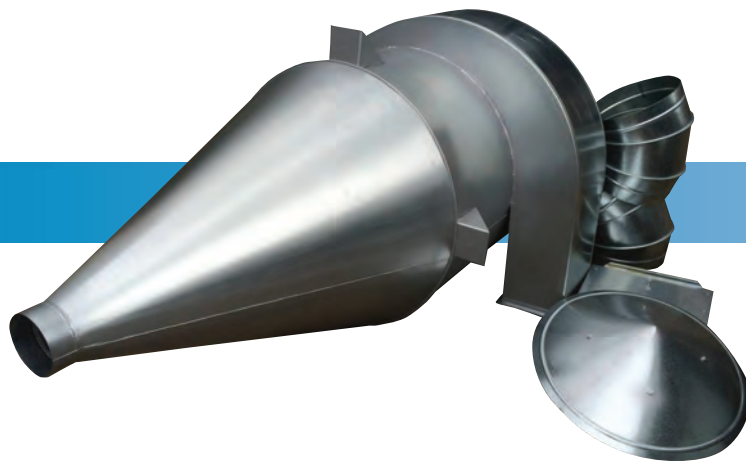


### Cyclone Dimensions

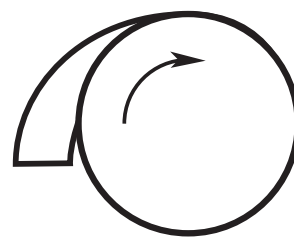
TYPE	A	B	C	D	E	F	G	QM*	QF**
750	850	700	125	750	300	200	300	2580	1500
850	950	750	150	850	355	200	300	3450	2000
900	1000	800	150	900	380	200	300	3880	2250
1000	1150	850	150	1000	400	250	350	4750	2750
1100	1200	900	200	1100	450	250	350	5690	3300
1200	1350	1000	200	1200	500	300	450	6900	4000
1400	1600	1150	250	1400	530	350	500	9000	5250
1600	1900	1300	250	1600	630	400	550	12000	7000
1800	2100	1670	300	1800	710	450	650	14600	8500
2000	2300	1850	300	2000	760	500	700	17250	10000

\*Capacity CU METRES / HR \*\*Capacity CU FEET / MIN

## CYCLONES



Anti-clockwise



Clockwise

### Cyclone Dimensions

SIZE	A	B	C	D	E	F	G	QM*	QF**
750	850	700	125	750	300	200	300	2580	1500
850	950	750	150	850	355	200	300	3450	2000
900	1000	800	150	900	380	200	300	3880	2250
1000	1150	850	150	1000	400	250	350	4750	2750
1100	1200	900	200	1100	450	250	350	5690	3300
1200	1350	1000	200	1200	500	300	450	6900	4000
1400	1600	1150	250	1400	530	350	500	9000	5250
1600	1900	1300	250	1600	630	400	550	12000	7000
1800	2100	1670	300	1800	710	450	650	14600	8500
2000	2300	1850	300	2000	760	500	700	17250	10000

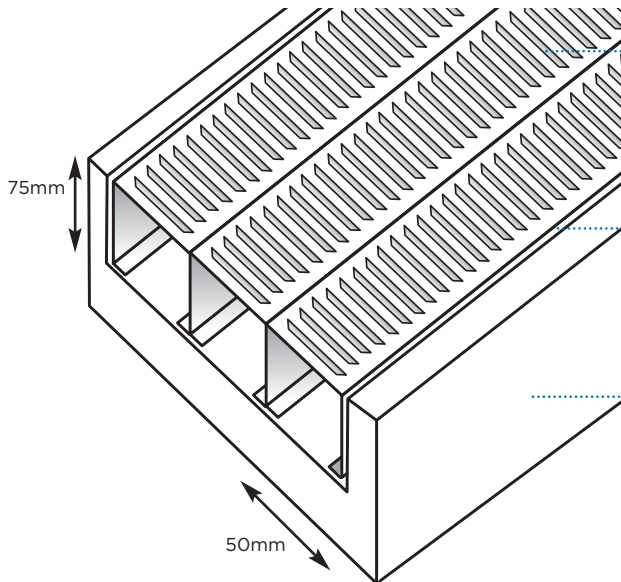
\*Capacity CU METRES / HR. \*\*Capacity CU FEET / MIN. These are only approximate ratings.



## ..... MULTIBARS

**Rugged galvanised construction will carry up to 10 tonnes axle load.**

Multibars are used in level floor applications where vehicle access is required and the high airflows obtainable with heavy duty panels are unnecessary.



**Rugged galvanised construction will carry up to 10 tonnes axle load**

**Supplied in 3ft lengths which are convenient for handling and cleaning**

**Multibars fit into concrete trenches which are easy to cast**

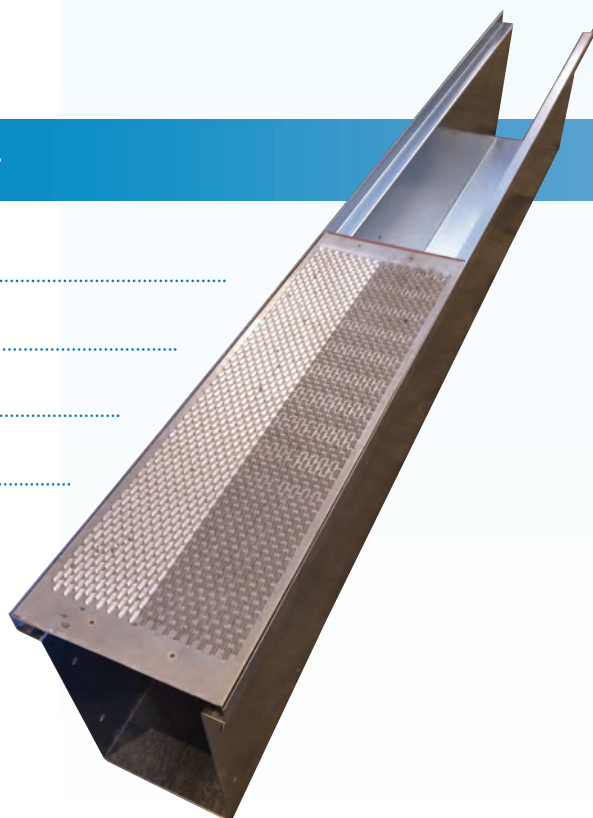
## LATERALS .....

**Driveover Level Floor Lateral .....**

**12" and 15" wide - 1mtr long .....**

**Galvanised louvre top .....**

**Under lateral trough made to suit .....**







6 Olympus Close  
Whitehouse Industrial Estate  
Ipswich  
Suffolk  
IP1 5LN  
United Kingdom

[www.westengineering.co.uk](http://www.westengineering.co.uk)  
E: [info@westengineering.co.uk](mailto:info@westengineering.co.uk)

T: +44 (0)1473 467930  
F: +44 (0)1473 467931