



# ÖVERUM PLOUGHS BY FARMGARD

FULLY MOUNTED REVERSIBLE PLOUGHS

BX/CX/DX



#### HARDENED STEEL

ÖVERUM Mucro is the name of the heat-treated steel used in ÖVERUM wearing parts. The raw material is chosen with great care and heat treated according to ÖVERUM'S own method. The correct carbon content in the steel profile determines the properties of the mouldboard. The mould board blanks are processed for 24 hours in an oven with carbon rich environment and high temperature. Carbon then penetrates into the surface layer of the steel. The subsequent heat treatment will give the surface layer both hardness and wearing resistance at the same time as it gives toughness and impact strength in the centre of the mouldboard.

### ÖVERUM PLOUGH BODIES – A RESULT OF NEW DESIGN TECHNIQUE AND ADVANCED MANUFACTURING METHODS

The XL-body performs excellently in different ploughing conditions. The furrow slice is inverted in an even successive twisting move. The twisting curve has been calculated to give minimal energy consumption. The draft requirement is therefore low despite the fact that the XLbody leaves a wide furrow for today's wide tractor tyres. Simple shapes and clever build up means low prices and limited wear. This results in down to earth economy.

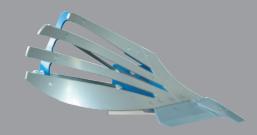
#### **NEW STONE RELEASE SYSTEM**

The lifting height of the plough body when releasing over a large stone is very important for the plough life, preventing overloading of material and welding seams. The new ÖVERUM ploughs with hydraulic stone release system have got a substantially increased lifting height. The share point can move well over 50 cm vertically from the working position.

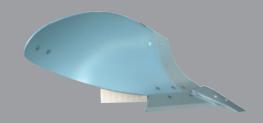
The stone release resistance is easy to adjust with the tractor hydraulic outlet (also on the go with an optional check valve). The maximum start releasing resistance is enhanced for the new hydraulic stone release system. The force is then decreasing as the plough body is releasing. This effectively protects all the details in the system. Lower pressure is used in light soils giving a soft and gentle stone release, and less stones pulled up on the surface. Higher pressure is required in heavy soils to prevent the plough bodies from releasing simply because of soil resistance.







> XS – SLATTED PLOUGH BODY FOR STICKY ABRASIVE SOIL



> UC - AGGRESSIVE PLOUGH BODY FOR 14" FURROWS

#### BX / CX / DX - FULLY MOUNTED REVERSIBLE





#### ÖVERUM BX

The BX range consists of fully mounted reversible ploughs with low lift requirement. Strong design manufactured from high grade heat-treated steel in vital parts means durable strength in comparison to the weight.

- The center of gravity is close to the tractor for minimum lift requirement.
- The BX ploughs "turn under". The bodies pass under the frame and the
  depth wheel passes up high when the plough is turned. The top link can
  be fitted high on the tractor and low on the plough therefore the lift
  requirement is minimized.
- Disc coulters can be mounted to all plough bodies.
- BX-F has fixed beams with individual shear bolts for each leg.
- BX-H has fully automatic hydraulic stone release system. It can be adjusted to suit different soil conditions with the tractor's spool valve.
- ÖVERUM reversible ploughs have documented low draft requirement according to official tests. This means energy savings, less slippage as well as increased capacity.
- The quick hitch headstock is standard equipment. With the easily detachable cross shaft hitching is a lot easier and safer.
- The furrow width can be adjusted in three steps in order to suit different ploughing conditions.
- Separate adjusting bolts for right and left hand, mean easy vertical setting in the field. When adjusting right hand plough bodies, left hand bodies are not affected and vice versa.



BX 490 F WITH EM-SKIMMERS. EACH LEG AND BODY IS PROTECTED BY A SHEAR BOLT



DUE TO THE FACT THAT THE BODIES ARE TURNING UNDER THE FRAME,
THE CENTRE OF GRAVITY COMES CLOSE TO THE TRACTOR, AND THE PLOUGH





TECHNICIAL SPECIFICATIONS	BX280 H	BX380 H	BX380 H BX290 F		BX490 F	
Number of furrows	2	3	2	3	4	
Working width (cm)	60-80	90-120	70-90	105-135	140-180	
Weight (kg) with XL-body*	760	970	620	780	940	
Point to point clearance (cm)	80	80	90/100	90/100	90	
Under beam clearance (cm)	75	75	75	75	75	
Disc coulters possible to fit	2	3	2	3	4	
Recommended tractor power (hp)	50-90	70-120	50-90	70-120	70-120	
Approx lift requirement	1600	2100	1500	1700	1900	

<sup>\*</sup>Equipped with: depth wheel, one pair of disc coulters, others fin coulters. All rights to make design modifications are reserved.



#### **ÖVERUM XCELSIOR CX**

The Xcelsior CX ploughs feature a modular designed beam support and draw frame allowing all the stress to be evenly distributed over the full length of the plough. The result is a simple strong and clean design with logical and easy adjustment. The Xcelsior range of CX ploughs are manufactured from high quality steel for strength and reliability to work in the toughest conditions. Large clearance between plough bodies and generous underbeam clearance allow space for effective skimmers to give good weed control and straw incorporation.

- The large diameter pivot shaft spreads the load whilst the plough is turning over.
- The direction of turnover for the Xcelsior CX range can be chosen according to conditions. The bodies turning under the frame result in good clearance to the ground even at low lifting heights. The bodies turning over the frame is recommended when using a furrow press. The lift requirement is then approx.10% higher.
- The ÖVERUM Xcelsior CX quick coupling cross shaft makes connection to the tractor safe and easy.
- The ÖVERUM Xcelsior range of ploughs are very easy to adjust. Plough
  alignment is set with a turnbuckle to make the plough pull in line. Front
  furrow adjustment can be done either with a spindle or by a hydraulic
  cylinder.
- The working furrow width of a Xcelsior plough is easily adjustable to three differing widths which enables the plough to operate in most if not all conditions.
- Ploughing depth is easily set without using tools. The large diameter wheel gives good support and low rolling resistance. A shock absorber makes the change of position gentle.
- The ÖVERUM Xcelsior plough, fitted with the well proven CAD/CAM designed XL bodies, combines excellent performance with low draft requirement and low cost for wearing parts.



-Taranaki Farmer, owner of ÖVERUM CX



CX 390 H. XL-BODIES AND EG-SKIMMERS PERFORM A WELL CLOSED FINISH



BODIES TURNING OVER THE FRAME REQUIRE SLIGHTLY HIGHER LIFT CAPACITY. WHEN THE BODIES ARE TURNING UNDER THE FRAME (SEE PAGE 3) A LOWER LIFTING HEIGHT IS SUFFICIENT.



NEW HEAVY DUTY CX HEADSTOCK.
THE CROSS SHAFT CAN BE
MOUNTED IN TWO HEIGHTS.
BUTTERFLY LOCK FOR TRANSPORT
IS AVAILBALE AS AN OPTION.



QUICK COUPLING CROSS SHAFT FOR EASY AND SAFE CONNECTION.



#### **XCELSIOR CX-F, FIXED BEAM PLOUGHS**

#### **CLOSE COUPLED MODELS, 3-5 FURROWS**

- The centre of gravity is very close to the tractor. This means that the lift requirement is low even with the good point to point clearance of 90cm.
- Each leg and plough body are protected against overload by an easily replaceable shear bolt.

#### **LONG CLEARANCE MODEL, 3-4 FURROWS**

- 100 cm point to point and 75 cm underbeam clearance gives a model with extra clearance and enables disc coulters to be fitted to all furrows.
- These disc coulters are individually adjustable and placed forward of the point where the best cutting effect is obtained.

#### **XCELSIOR CX-H, NON-STOP PLOUGHS**

- The hydraulic stone release system is easily adjusted to suit different soil conditions. Using the hydraulic spool valve on the tractor the release resistance is adjusted. Lower pressure is used in light soils giving a soft and gentle stone release. Higher pressure is required in heavy soils to prevent the plough bodies from releasing simply because of soil resistance.
- The release resistance is greatest when the point is in working position.
   Then it decreases gradually when the point is forced out of the ground.
   This reduces the stress on both the plough and the tractor.
- On the CX range it is possible to fit an optional headstock allowing transportation of the plough in the butterfly position.
- The combi wheel (transport/depth) is then remounted to the side of the plough and the toplink is fitted in the slotted hole for safe transport.



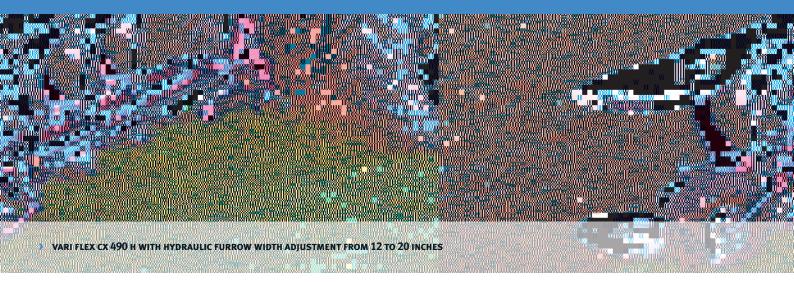
> CX 590 F with trashboards and combi wheel in forward position.



THE FRAME PROFILE BECOMES WIDER IN THE FRONT AS THE FORCES ARE ACCUMULATED. THE FURROW WIDTH IS ADJUSTABLE IN THREE STEPS.

TECHNICIAL SPECIFICATIONS	CX390 H	CX3100 H	CX490 H	CX4100 H	CX390 F	CX3100 F	CX490 F	CX4100 F	CX590 F
Number of furrows	3	3	4	4	3	3	4	4	5
Working width (cm)	105-135	120-150	140-180	160-200	1105-135	120-150	140-180	160-200	175-225
Weight (kg) with XL-body*	1060	1070	1280	1300	940	950	1110	1120	1280
Point to point clearance (cm)	90	100	90	100	90	100	90	100	90
Under beam clearance (cm)	75	75	75	75	75/80	75/80	75/80	75/80	75/80
Recommended tractor power (hp)	70-110	70-110	90-150	90-150	60-100	60-110	70-120	70-120	90-150
Approx lift requirement	2500	2900	3400	3900	1500	2200	2500	3000	3400

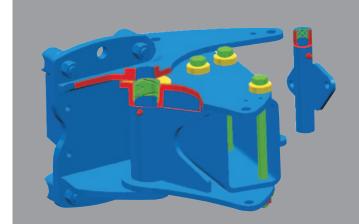
<sup>\*</sup>Equipped with: depth wheel, one pair of disc coulters, others fin coulters. All rights to make design modifications are reserved.



#### **VARI FLEX CX**

ÖVERUM Vari Flex CX is a new series of fully mounted reversible ploughs in the medium range, for tractors up to 160 hp. The range consists of three, four or five furrow ploughs with either shear bolt protection, or fully automatic hydraulic stone release system.

- The furrow width is hydraulically controlled from 12 to 20 inches (30 to 50 cm) (Vari Flex CX 580 H from 12 to 18 inches). The pivot point for the furrow width adjustment is placed in the pulling line of the plough beam. This minimizes the adjustment forces and the wear of the bearings.
- The hydraulic furrow width adjustment can be extended with a
  hydraulic front furrow width adjustment. These two can also be
  connected in a master/slave system, resulting in an automatic
  adaptation of the front furrow width corresponding to the others. By
  flicking a switch the same spool valve will act on the front furrow only.
- By regulating the furrow width the plough can easily be adapted to
  different ploughing conditions. Wider furrows result in higher output
  and lower energy consumption. The furrow width resulting in the best
  quality ploughing for each soil type can easily be found.
- All pivot points in the furrow width adjustment are equipped with replaceable bushes with greasing possibility. The greasing reduces the forces required, and prevents dust and water getting in.
- The Vari Flex CX range incorporates a new design of the main frame.
   Precision drilling for the extensive bolt assembly has made it possible to use a heat treated steel main frame tube with 40% higher strength compared to standard frame tubes. This together with several other heat-treated details in the build give the Vari Flex CX ploughs a high strength to weight ratio.



ALL PIVOT POINTS IN THE FURROW WIDTH ADJUSTMENT ARE EQUIPPED WITH REPLACEABLE BUSHES WITH GREASING FACILITIES.



PRECISION DRILLING FOR THE EXTENSIVE BOLT ASSEMBLY HAS MADE IT POSSIBLE TO USE A HEAT-TREATED STEEL MAIN FRAME TUBE.

#### BX / CX / DX - FULLY MOUNTED REVERSIBLE



- The direction of turn over for Vari Flex CX can be chosen according to conditions. Normally 3-and 4-furrow models are mounted with the bodies turning under the frame, resulting in good clearance of the ground even at low lifting height. The bodies turning over the frame is recommended when using a furrow press. In this case the four-furrow model is equipped with an alignment cylinder. When the turn over is activated the furrow width is automatically going down to min. position, the plough reverses, and the furrow width comes back to the preset value again. Five furrow ploughs are always mounted with alignment cylinder and bodies turning over the frame.
- One half of a double cylinder with a common piston rod manages the automatic alignment. The other half of the double cylinder is controlling the furrow width adjustment.
- The line of draft can be fine-tuned in order to balance out all side forces. The top link is then pointing in the direction of travel when the lower links are free to move sideways. The draft requirement is thereby reduced to the minimum.
- The Vari Flex CX is a strong medium range plough with good build qualities ensuring a long life.



VARI FLEX CX 490 F WITH FIXED DISC COULTERS AND EG SKIMMERS.
 BODIES AS WELL AS SKIMMERS HAVE INDIVIDUAL SHEAR BOLTS.



WITH THE TURNBUCKLE ALL SIDE FORCES ARE BALANCED OUT FOR MINIMUM DRAFT REQUIREMENT.



THE DOUBLE CYLINDER
MEMORISES THE FURROW WIDTH
SETTING DURING THE ALIGNMENT
AND TURNOVER ACTION.

TECHNICIAL SPECIFICATIONS	VARI FLEX CX390 H	VARI FLEX CX3100 H	VARI FLEX CX490 H	VARI FLEX CX4100 H	VARI FLEX CX580 H	VARI FLEX CX390 F	VARI FLEX CX3100 F	VARI FLEX CX490 F	VARI FLEX CX4100 F	VARI FLEX CX590 F
Number of furrows	3	3	4	4	5	3	3	4	4	5
Working width (cm)	90-150	90-150	120-200	120-200	150-225	90-150	120-200	120-200	120-200	150-250
Weight (kg) with XL-body*	1140	1150	1370	1380	1570	990	1000	1190	1200	1360
Point to point clearance (cm)	90	100	90	100	80	90	100	90	100	90
Under beam clearance (cm)	75	75	75	75	75/80	75/80	75/80	75/80	75/80	75/80
Pairs of disc coulters possible to fit	3	3	4	4	1	3	3	4	4	5
Recommended tractor power (hp)	70-120	70-120	90-150	90-150	100-160	60-100	60-100	70-120	70-120	90-150
Approx lift requirement	2600	3000	3500	4000	4500	1600	2300	2600	3100	3500

<sup>\*</sup>Equipped with: depth wheel, one pair of disc coulters, others fin coulters. All rights to make design modifications are reserved.



## ÖVERUM XCELSIOR DX

The Xcelsior DX-series consists of fully mounted reversible ploughs intended for big tractors and heavy duty ploughing. Modern design and quality manufacture are the main characteristics for the Xcelsior DX ploughs.

- The quick hitch cross shaft (cat 3) can be set in two different height positions to allow correct draft balance to the tractor.
- Ø 150 mm pivot shaft with needle bearings spread the forces when turning the plough.
- The Xcelsior DX frame is built to a wedge form with increasing width as the forces increase forward in the plough.
- A hydraulic alignment ram automatically straightens the plough, giving it a gentle turning action.
- The Xcelsior DX ploughs are very easy to adjust. Plough alignment is set by altering the stroke of the hydraulic alignment ram with the threaded rear section. Vertical adjustment is set with separate set screws for r.h. and l.h. plough bodies without the use of tools.
- The heavy duty combi wheel is available in two versions. The rear
  mounted version offers the best depth control and weight transfer.
  The side mounted version is clamped to the main frame and the
  position can be changed along the frame to suit different requirements.
  The large diameter tyre gives good support and low rolling resistance.
- ÖVERUM Xcelsior DX ploughs are transported in the butterfly position. The transport lock on the headstock is set into the locking position and the combi wheel is changed from depth wheel to transport position. When the reversing action comes to the butterfly position the springloaded catch automatically locks in the transport position.
- The furrow width is adjustable in three different positions to suit variable ploughing conditions











HEAVY DUTY HEADSTOCK WITH QUICK COUPLED CROSS SHAFT AND ALIGNMENT CYLINDER.

TECHNICIAL SPECIFICATIONS	DX490 H	DX4100 H	DX590 H	DX5100 H	DX4100 F	DX590 F	DX5100 F	<b>DX</b> 690 F
Number of furrows	4	4	5	4	4	5	5	6
Working width (cm)	140-180	160-200	175-225	200-250	160-200	175-225	200-250	210-270
Weight (kg) with XL-body*	1510	1530	1820	1840	1350	1590	1610	1760
Point to point clearance (cm)	90	100	90	100	100	90	100	90
Under beam clearance (cm)	75/80	75/80	75/80	75/80	75/80	75/80	75/80	75/80
Pairs of disc coulters possible to fit	4	4	5	5	4	1	5	1
Recommended tractor power (hp)	120-180	120-180	140-180	150-180	120-180	120-180	150-180	150-180
Approx lift requirement	4000	4300	5000	5700	3500	4000	4500	5000

<sup>\*</sup>Equipped with: depth wheel, one pair of disc coulters, others fin coulters. All rights to make design modifications are reserved.

#### **ACCESORIES**



SKIMMER EG. WIDE SHALLOW CUT. > SKIMMER EP. PLASTIC **WORKS WELL WITH BOTH FIN** COULTER AND DISC COULTER.



MOULDBOARD FOR THE BEST **SCOURING PROPERTIES.** 



> SKIMMER EM. HANDLES LARGE AMOUNTS OF CROP RESIDUES. WORKS BEST WITH FIN COULTER.



> TRASHBOARD, GOOD CLEARANCE FOR STRAW. NOT RECOMMENDED FOR STICKY SOILS.



**FIN COULTER. LOW WEIGHT AND GOOD CLEARANCE.** 



FIXED DISC COULTER. 18" OR 20" PLAIN OR 20" RIPPLED DISC.



> SPRING LOADED DISC COULTER, 18" OR 20" PLAIN OR 20" RIPPLED



> FURROW WIDENING KNIFE FOR WIDE TRACTOR TYRES.



> DEPTH WHEEL STEEL. DIAMETER 500 mm, width 160 mm.



> DEPTH WHEEL RUBBER 7.00 X 12. DIAMETER 645 MM, WIDTH 182 MM.



> COMBI WHEEL FOR DEPTH CONTROL/TRANSPORT 10.00 x 12. DIAMETER 710 MM, WIDTH 264MM



DOUBLE WHEEL FOR BX, CX AND VARI FLEX CX. DIAMETER 575, WIDTH 210MM.



**COMBI WHEEL FOR XCELSIOR AND** VARI FLEX DX MODELS. DIM. 10,5 X 16. DIAMETER 755 MM, WIDTH 275MM



> COMBI WHEEL IN FORWARD POSITION FOR XCELSIOR DX MODELS. DIAMETER 755 MM, WIDTH 275MM.



> HYDRAULIC SIDE ADJUSTMENT BX. FRONT FURROW WIDTH.



> HYDRAULIC SIDE ADJUSTMENT CX/ DX. FRONT FURROW WIDTH.



> STONE RELEASE PRESSURE ADJUSTMENT SET FOR ON THE GO ADJUSTMENT.



> FURROW PRESS ARM FOR XCELSIOR CX AND DX. DOUBLE ACTING RUBBER SUSPENSION.



> FURROW PRESS ARM FOR VARI FLEX CX AND DX. DOUBLE ACTING RUBBER SUSPENSION.



> NIVELL INTEGRATED FURROW LEVELLER FROM THREE TO FOUR **FURROWS.** 

#### ÖVERUM



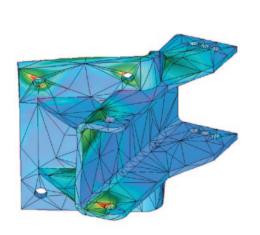


A combination of modern computer technique and reliable craftsmanship regarding material knowledge, heat treatment and hardening are the key elements in the success of the ÖVERUM plough range.

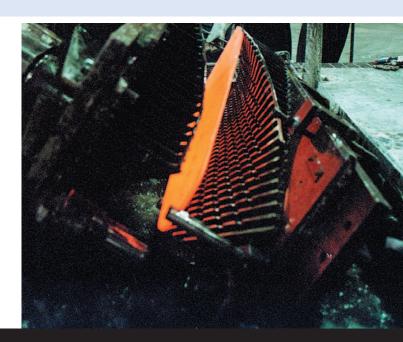
The design engineers work in a three dimensional computer environment. Every detail is designed as a solid prepared to make movement and strength calculations on. This makes it possible to test every function and movement in the computer before constructing the first prototype. Directly linked to the design computer there is a numerically controlled mill which produces a model of the detail. When the designer is satisfied with the model, the tools

forming the different parts of the plough body are designed. The information is transferred to the mill which produces the exact tools used for hot bending and hardening of the parts. Despite all modern techniques, of course all new products are rigorously tested in comprehensive laboratory and field tests.

The concentration on product development represents a solid ground for the future and gives the ÖVERUM products Quality, Strength and Precision. ÖVERUM's Bruk AB is a part of Kongskilde Industries, a world-wide group producing products for farming and industry.



+2.500E+02 +2.000E+02 +1.500E+02 +1.000E+02 +5.000E+01







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