

An Introduction to Type Classification

The importance of breeding cows of good conformation has never been greater, as modern production systems impose stringent demands on the dairy cow. Both milk buyers and the general public find conformation defects increasingly unacceptable and dairy farmers themselves are becoming more aware that cows of better type produce more easily and for longer. The Type Classification programme accentuates economically important conformation traits that influence a cow's ability to withstand modern production and management practices. The modern dairy cow needs good functional traits: a well-supported udder with strong central ligament, correctly set legs with good foot angle and the general constitution to cope with life on a modern dairy farm.

The service offers its users two key advantages:

It provides an independent assessment of every cow in the herd.

It provides a final score for your heifers and cows, which can substantially increase their value.

The system is appropriate to every type of farming system and currently evaluates over 100,000 animals every year.

NBDC Classifiers operate an internationally recognised appraisal system which is used by the AI industry in the British Isles to provide reliable type proofs. Classification involves the appraisal of an animal in comparison the Breed Society's Breed Standard Cow. An overall score and grade are awarded following the below guidelines that are set out by the Breed Society involved. Please note that these details are for the Holstein breed and may be differ from other Society's specifications.

Final Linear Score	Final Grade
90+	Excellent (EX)
85 - 89	Very Good (VG)
80 - 84	Good Plus (GP)
75-79	Good (G)
65-74	Fair (F)
50-64	Poor (P)

Maximim Points	
1st Calver	89 Points
2nd Calver	89 Points
3rd Calver	93 Points
4th Calver +	97 Points

The stage of lactation and age of animal must be taken into consideration when assigning a classification score and composite box breakdown. The classification benchmark standard is by comparison to the Society's Breed Standard Animal.

The NBDC Classification Team assess 18 breeds of cattle across the UK and Channel Islands. The below table shows all the breeds currently participating in the Type Classification Scheme.


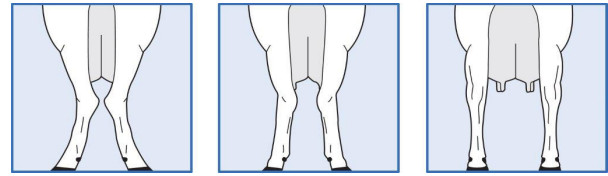

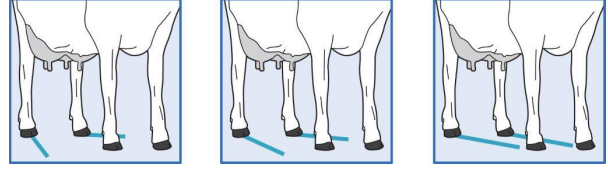
Box Breakdowns	
VG Heifer	90 Point Maximum 85 Point Minimum Mammary & Feet & Legs 83 Point Minimum Dairy Strength & Rump 142cm Minimum Height
VG 89 Heifer	Must have a minimum of 89 points in each box Must have calved before her third birthday
VG 89 Second Calver	Does not have to be VG89 points in every box Maximum score possible is 90 points for all boxes
Excellent 3rd Calver	Final score 93 point maximum
Excellent 4th Calver	Maximum final score 95 points
Excellent 5th Calver	Maximum final score 97

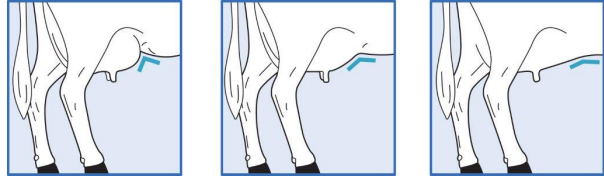
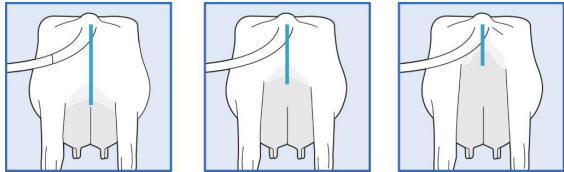
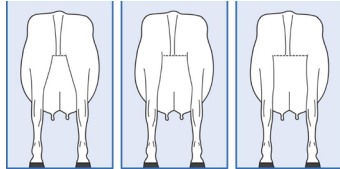
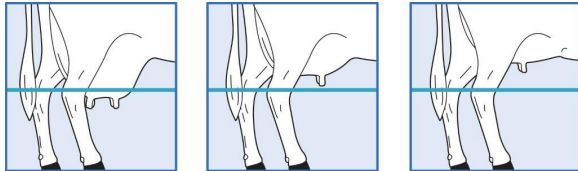
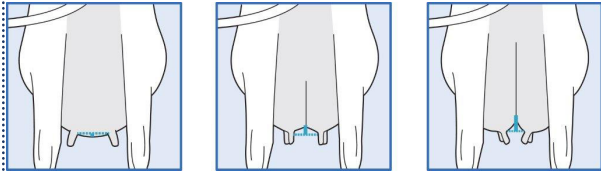
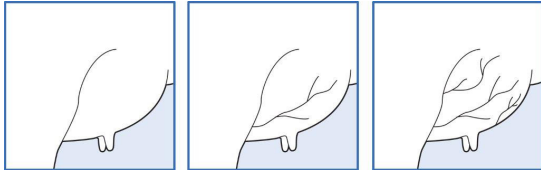
Dairy Breeds	Beef Breeds
Ayrshire	Beef Shorthorn
British Friesian	Dexter
Brown Swiss	Gloucester
Dairy Shorthorn	Irish Moiled
Guernsey Island	Longhorn
Guernsey UK	Simmental
Holstein	South Devon
Jersey Island	Welsh Black
Jersey UK	
Montbeliarde	

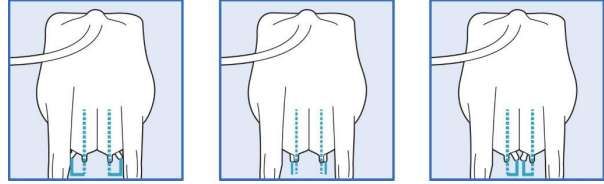
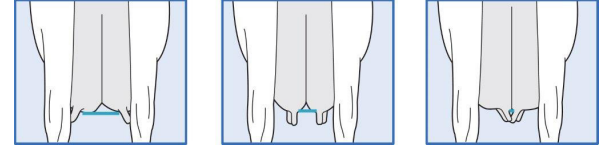
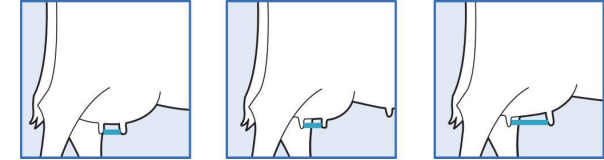
Type Classification Guide

The precise description of each trait is well defined and it is essential that the full range of linear scores to identify the intermediate and extremes of each trait be used. It is important to ensure you view the animal from all angles, considering the suggested reference points, to gain a rounded view of the animal's traits.

Trait	Reference Point	Score Breakdown	Reference Scale	Visual Aid
Body Conformation Traits				
Stature	Measured from the top of the spine in between the hips to the ground. Please note that the following measurements are for the Holstein Breed.	1 Short (136cm) 5 Intermediate (148cm) 9 Tall (160cm)	136cm -160cm 3cm per point.	
Body Depth	Distance between top of spine and bottom of barrel at last rib - the deepest point, independent of stature.	1-3 Shallow 4-6 Intermediate 7-9 Deep	Optical in relation to the balance of the animal. Always look on the same side, because all cows are deeper on one side than the other.	
Rump Angle	Measured as the angle of the rump structure from hooks (hips) to pins.	1 High Pins (+4cm) 5 Intermediate (-4cm) 9 Extreme Slope (-12cm)	(+) 4cm - (-) 12cm (-)2cm per point from Score 1.	
Rump Width	Distance between the most posterior point of pin bones.	1-3 Narrow 4-6 Intermediate 7-9 Wide	10cm - 26cm 2cm per point.	
Dairy Strength Traits				
Chest Width	Measured from the inside surface between the top of the front legs.	1-3 Narrow 4-6 Intermediate 7-9 Wide	13cm - 29cm 2cm per point.	
Angularity / Dairyness	The spring of the ribs or the degree of openness between the ribs.	1 No spring and close ribbed 9 Well sprung and open ribbed	When ribs are tight there is no opening. When the ribs spring apart or expand open, the space between ribs becomes wider.	

Trait	Reference Point	Score Breakdown	Reference Scale	Visual Aid
Feet & Leg Traits				
Rear Leg Set	Angle measured at the front of the hock.	1-3 Straight (160 degrees) 4-6 Intermediate (147 degrees) 7-9 Sickle (134 degrees)	In case of a significant difference the worst/extreme side must be scored.	
Rear Leg Rear View	As measured from the rear.	1 Severely outward pointing toe with hocks touching 5 Slight toe out with hocks slightly further apart 9 Feet point forward with hocks straight from the rear		
Foot Angle	Angle at the front of the rear hoof measured from the floor to the hairline at the right hoof.	1-3 Very low angle 4-6 Intermediate angle 7-9 Very Steep	1= 15 degrees 5= 45 degrees 9= 65 degrees If the Foot Angle is difficult to score because of hoof trimming, flooring etc. it is possible to look at the angle of hairline. In case of a significant difference the worst/extreme side must be scored.	
Locomotion (Not a true Linear Trait)	When walking, the use of legs, feet, length and direction of the step.	1-3 Severe Abduction and/or Short Stride 4-6 Slight Abduction and Medium Stride 7-9 No Abduction and Long Stride	Abduction is the lateral deviation in respect to the straight line. The score of 9 means that the rear leg is put straight forward with force to the step of the foreleg, and (extreme) lame cows getting score 1 because they have short strides.	

Trait	Reference Point	Score Breakdown	Reference Scale	Visual Aid
Mammary Traits				
Fore Udder Attachment (Not a true Linear Trait)	The strength of attachment of the fore udder to the abdominal wall.	1 - 3 Weak and loose 4 - 6 Intermediate acceptable 7 - 9 Extremely strong and tight	In cases of significant difference in the quality of udder attachment of either side the worse side must be scored. (Only if the udder is healthy).	
Rear Udder Height	The distance between the bottom of the vulva (pin bone) and the milk secreting tissue: in relation to height of the animal.	1 - 3 Very low 4 - 6 Intermediate 7 - 9 High	Measured on a scale between the bottom of the vulva and the hock; the midpoint represents a score 4 (29 cm); 2 cm per point.	
Rear Udder Width	The width of the milk secreting tissue as measured from the rear.	1 Very Narrow Rear Udder 5 Intermediate Rear Udder 9 Wide Rear Udder		
Udder Depth	The distance from the lowest part of the udder floor to the hock.	1 Below hock 2 Level with hock 5 Intermediate 9 Shallow (22cms above hocks)	Score 2 = (0 cm); 3cm per point.	
Udder Support / Central Ligament	The depth of cleft, measured at the base of the rear udder.	1 Convex to flat floor (+1 cm) 2 (+0.5 cm) 3 (+0 cm) 4 Slight definition (-1 cm) 5 (-2 cm) 6 (-3 cm) 7 Deep definition (-4 cm) 8 (-5 cm) 9 (-6 cm)		
Udder Texture	The texture of the udder.	1 Thick heavy meaty texture 5 Intermediate 9 Silky texture with vein definition		

Trait	Reference Point	Score Breakdown	Reference Scale	Visual Aid
Teat Traits				
Front Teat Placement (Rear View)	The position of the front teat from the centre of the quarter as viewed from the rear.	1 - 3 Outside of quarter 4 - 6 Middle of quarter 7 - 9 Inside of quarter		
Rear Teat Placement (Rear View)	The position of the Rear Teat from the centre of the quarter as viewed from the rear.	1 - 3 Outside of quarter 4 - 7 Middle of quarter 8 Touching 9 Crossing	4 represents midpoint of the quarter.	
Teat Placement (Side View)	The distance between the front and rear teats.	1 - 3 Close 4 - 6 Intermediate 7 - 9 Far Apart		
Teat Length	The length of the front or rear teat.	1 - 3 Short 4 - 6 Intermediate 7 - 9 Long	1-9 cm; 1 cm per point for front teats and 0.75 cm for rear teats.	