MEATEDUCATION

AHDB

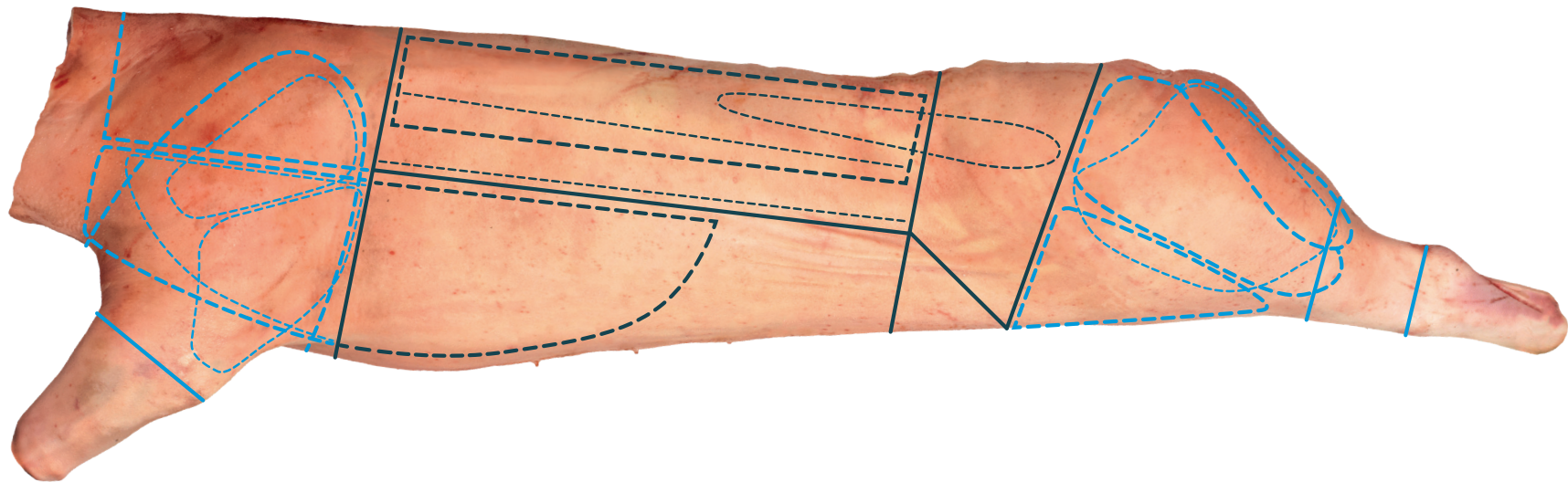# Pork – Practical – Level 2
Cutting pork primal cuts into basic retail and foodservice cuts

Contents

Introduction

Welcome to the AHDB Meat Education Programme, Pork – Level 2, which focuses on cutting pork primal cuts into basic retail and foodservice cuts.

Each primal cut can be cut into various retail and foodservice cuts. Starting with the forequarter right through to the loin, belly, including leg and chump, this brochure includes detailed step-by-step instructions.

Each stage is shown with both written and photographic instruction, which will provide you with the required level of knowledge you will need to pass Level 2.

Once you have successfully completed Level 2, Level 3 will cover cutting pork primal muscles into advanced retail and foodservice cuts, which involves many seam butchery techniques.

Good luck!

Dick van Leeuwen
AHDB Business Development Manager
and Master Butcher

Exam requirements

You are required to know how to carry out the following:

- Cut each primal muscle into the retail and foodservice cuts as illustrated in this manual, by following natural seams, where possible, and without cutting unnecessarily into muscles. You are allowed to refer to the cutting specifications

- Preparing the cuts without any unnecessary cuts/stab marks or damage to the muscles

- Cuts should be without bone dust; stringing of joints should be even and tidy, steaks should be of even thickness

- Minimise wastage by removing gristle, connective tissue and fat cleanly, without wasting good meat

- Recognise and know the names of the primals and retail/foodservice cuts featured

Note: Learn first to do the job accurately, and speed will follow with practise. It is more difficult to lose bad cutting habits later!

On the day of the examination:

- The examiner will select a forequarter, a middle, and a leg and chump of pork

- The examiner will present you with nine printed copies of cutting specifications from this manual (three for each primal cut), to produce retail and foodservice cuts

- **You need to do this in a reasonable time**, taking into account all the requirements previously stated

Pork carcase classification

The following equipment is approved for use in the UK:

- Optical probe
- Hennessey Grading Probe (HGP)
- Fat-O-Meater (FOM)
- AutoFOM
- CSB Ultra-Meater

The HGP, FOM, AutoFOM and CSB Ultra-Meater are all automatic recording probes.

Method 1

Optical Probe is used to measure backfat and rind thickness at the P1 and P3 positions, level with the head of the last rib. The probe is inserted 4.5 cm and 8 cm from the dorsal midline, respectively. The sum of the P1 and P3 measurements is recorded.

Method 2

Optical Probe is used to measure backfat and rind thickness at the P2 position, level with the head of the last rib. The probe is inserted 6.5 cm from the dorsal midline.

Method 3

HGP or FOM are used to measure:

- Backfat and rind thickness at the P2 position as for Method 2. The HGP or FOM probes are inserted 6 cm from the dorsal midline
- Backfat and rind thickness at a point 6 cm from the dorsal midline between the third and fourth last rib. This measurement is referred to as rib fat
- Longissimus dorsi (eye muscle) depth at a point 6 cm from the dorsal midline between the third and fourth last rib. This measurement is referred to as rib muscle

Locations of probing sites on a pig carcase

P1 P2 P3

6 cm

Rib fat

Rib muscle
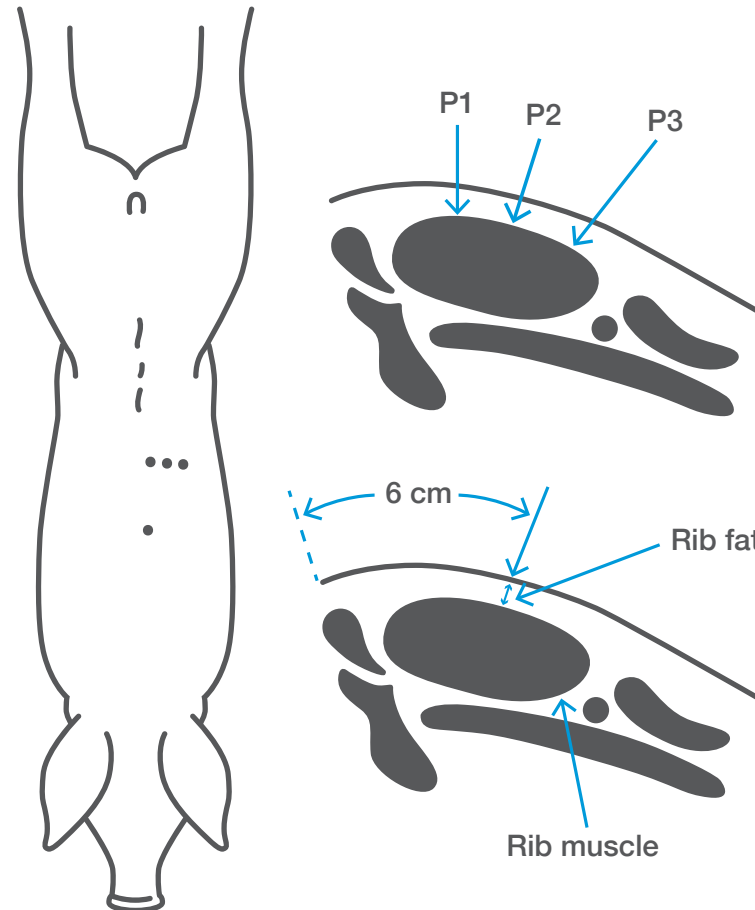
Lean Meat Percentage (LMP) and EU Grade

LMP is calculated as follows:

- Optical probe
- Cold carcase weight and P2 (or P1 + P3) fat depths are used to estimate LMP
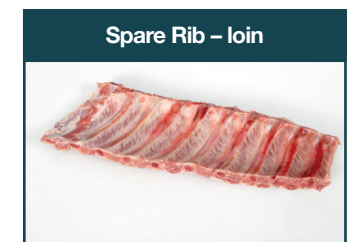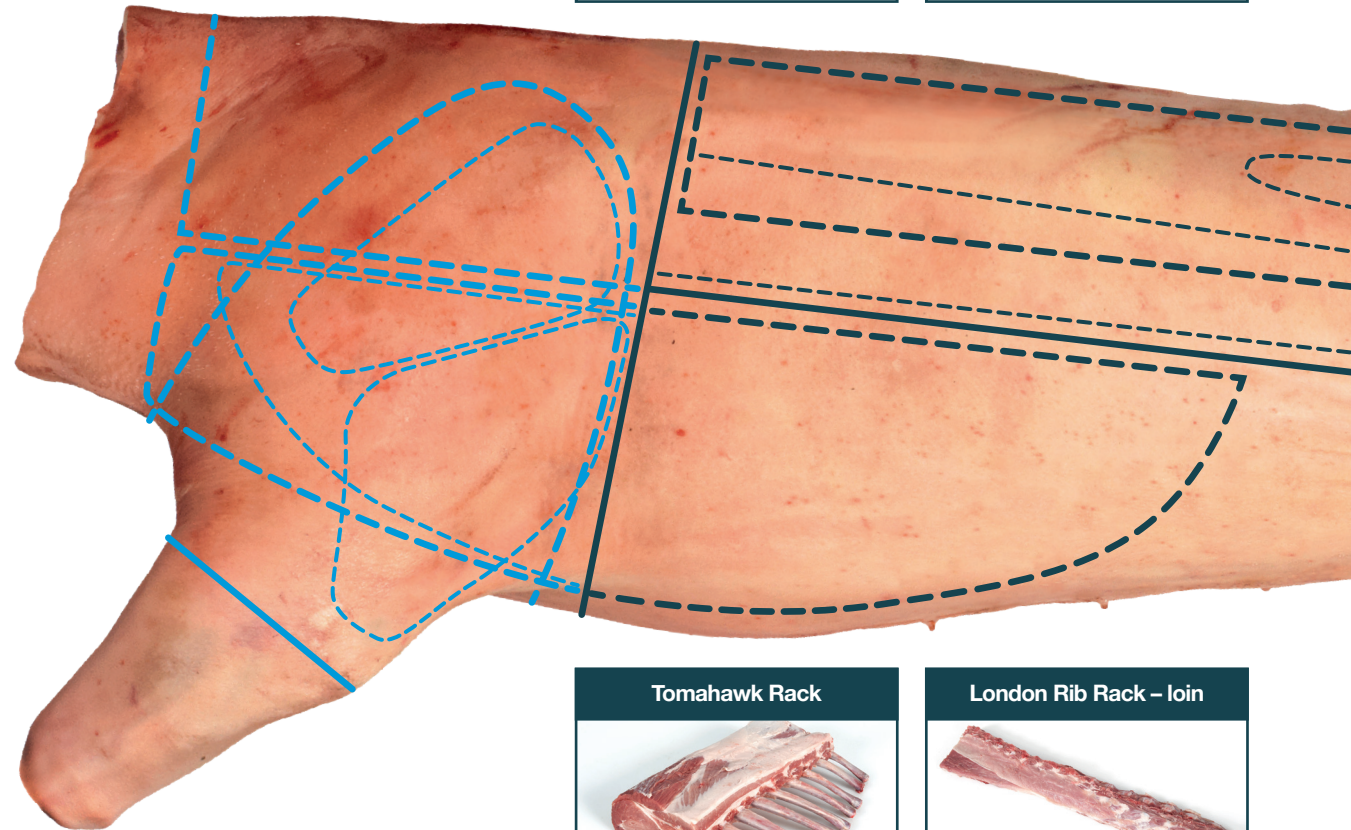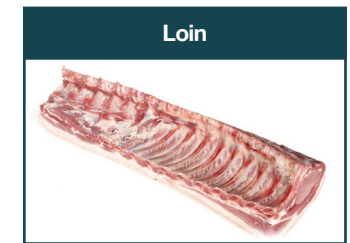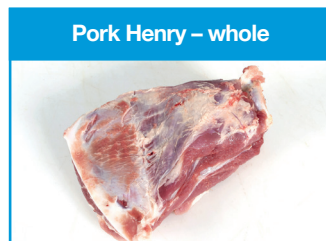
An EU grade can be allocated to a carcase by using the LMP.

Lean meat percentage	EU grade
60% and above	S
55–59%	E
50–54%	U
45–49%	R
40–44%	O
39% or less	P

Visual Appraisal

This is the identification of pigs with carcase faults. These are described as 'Z' carcases. Carcases that are scraggy, deformed, blemished, pigmented and coarse skinned, those with soft fat or pale muscle, and those devalued by being partially condemned, are recorded as 'Z' on the carcase record (PCC1 or computer equivalent). Young boars are identified and recorded. Carcases with poor conformation are recorded as 'C' carcases at the request of the abattoir.
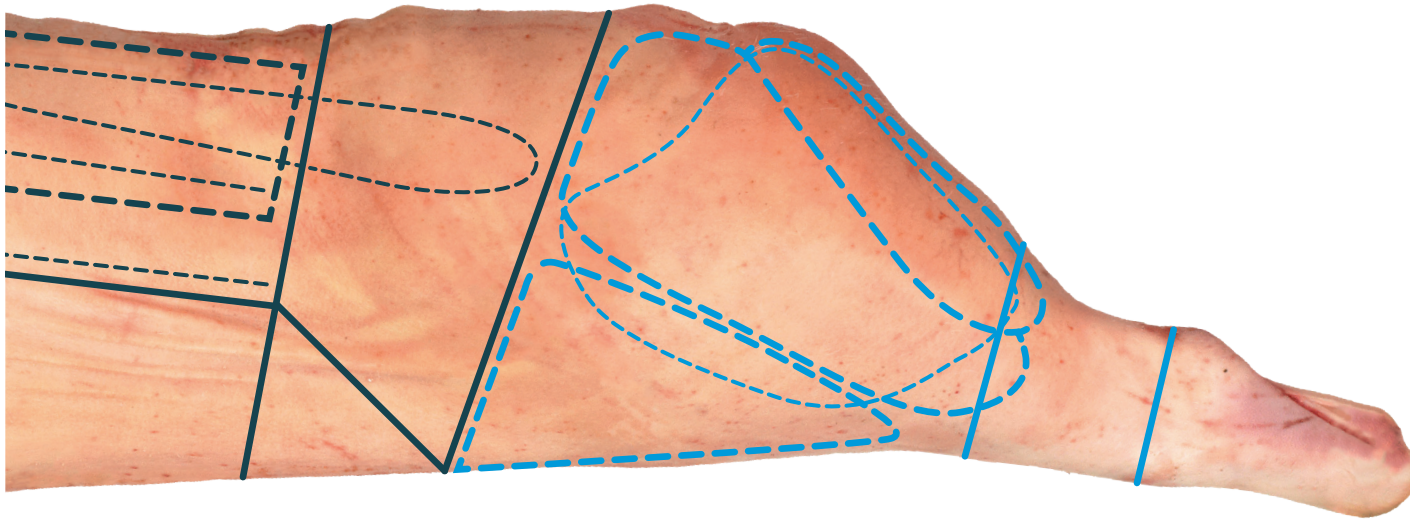
3

Pork primal cuts

Forequarter – bone-in

Collar of Pork – boneless

Denver Muscle (Presa)

Chuck Eye Joint – Collar

Boston Butt (Neck End)

Shoulder – round

LMC

Pork Henry – whole

Brisket Muscle – fully trimmed

Brisket Rib Rack

Shank – Forequarter

Middle

Loin

Tomahawk Rack

London Rib Rack – loin

Gloucester Ribs Rack

Spare Rib – loin

Fillet on the bone

Fillet

Leg of Pork incl. Chump

Leg of Pork

Topside

Topside excl. gracilis muscle

Silverside with Salmon Cut

Salmon Cut – fully trimmed

Thick Flank

Rump

Belly

King Rib Rack – belly

Spare Ribs – belly

Chump

Hock

Shank – Hindquarter

Pork bone structure

SACRAL VERTEBRAE (SACRUM)

COCCYGEAL VERTEBRAE

THORACIC VERTEBRAE (14/15)

LUMBAR VERTEBRAE (6/7)

ISCHIUM

CERVICAL VERTEBRAE (7)

SCAPULA

FEMUR

TIBIA/FIBULA

CALCANEUS

ILIUM

RIBS (14/15)

PATELLA

HUMERUS

STERNUM

RADIUS/ULNA

Shoulder – boneless, rindless, excluding shank

Position of the shoulder.

1 Shoulder – round

2 Start separating the brisket muscle from the shoulder muscles by following the natural seam (see arrow).

3 Continue to separate the brisket from the LMC muscle …

4 … to expose the humerus, leaving the small shin-like muscle attached to the brisket.

5 Follow the contours of the shoulder blade and …

6 … remove the blade bone.

7 Remove the shank and …

8 … the humerus.

9 Remove rind and excess fat, taking care not to cut into underlying muscles.

10 Shoulder – boneless, rindless, excluding shank.

Carvery Shoulder Roast – boneless

Position of the shoulder.
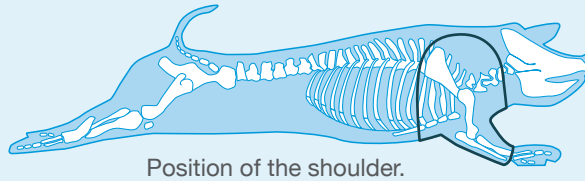
1 Shoulder – round

2 Cut back the muscle covering the shoulder blade, starting at the side of the blade muscle.

3 Remove the shoulder blade, taking care not to cut into underlying muscles.

4 Cut through the brisket muscle and follow the contour …

5 … of the humerus.

6 Remove the humerus but leave the shank attached to the shoulder.

7 Trim exposed shoulder muscles of excess fat. Maximum fat thickness 10 mm.

8 Remove excess gristle, especially the thickest part running through the feather muscle.

9 Remove excess rind, taking care not to roll it inside the joint.

10 Secure with string or roasting bands at regular intervals.

11 Carvery Shoulder.

Boston Butt Joint (Neck End) – boneless and rindless

Position of the collar.
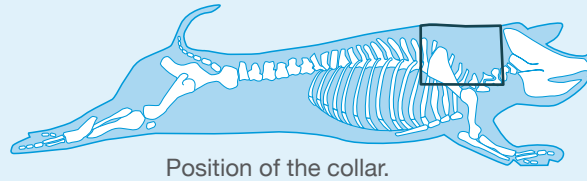
1 Make a mark on the first rib 10 mm from the edge of the neck bone and parallel with the backline.

2 Cut and saw through the bones.

3 Separate into Boston Butt (neck end) and remaining hand and spring.

4 Boston Butt (neck end) – bone-in, rind on.

5 Remove rind and backfat.

6 Trim excess fat, maximum fat thickness 10 mm.

7 Sheet bone neck and rib bones.

8 Expose the blade bone, trying not to cut into surrounding muscles.

9 Remove the blade bone and trim away any bone gristle and cartilage.

10 Trim excess fat to a thickness of 10 mm maximum. Secure joint with string or roasting bands.

11 Boston butt joint (neck end) – boneless and rindless.

Collar Joint – boneless

Position of the collar.
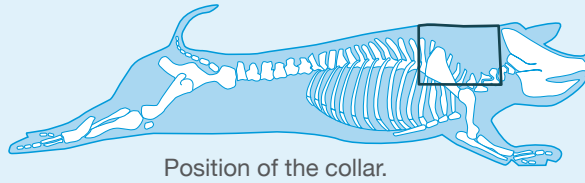
1 Boneless collar …

2 … trimmed of excess fat and gristle. Secure joint with roasting bands or string.

3 Collar joint – boneless.

Collar Joint with crackling – boneless

Position of the collar.
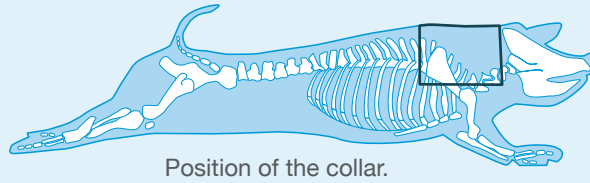
1 Boneless collar trimmed of excess fat and gristle.
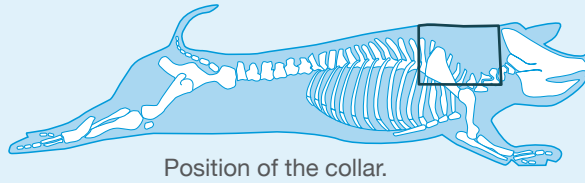
2 Place a piece of rind to cover the top of the joint and secure with roasting bands or string.

3 Collar joint with crackling – boneless.

Mini Joint (350–450g) – Collar
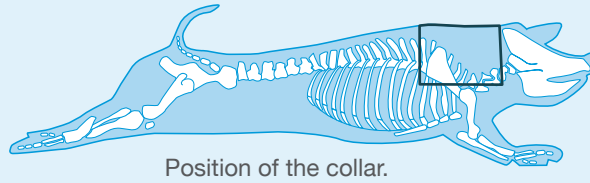
Position of the collar.

1 Boneless trimmed collar of pork.

2 Cut the collar into halves and secure both joints with roasting bands at 10 cm intervals. Cut between bands to create 350–450 g mini joints.

3 Mini joints – collar.

Mini Joint with Crackling (350–450 g) – Collar

Position of the collar.

1 Boneless trimmed collar of pork.

2 Cut the collar into halves, place a layer of rind on the joint and secure with roasting bands at 10 cm intervals. Cut between bands to create mini joints.

3 Mini joint with crackling – collar.

Collar Steaks

Position of the collar.

Code: **3001**

1 Boneless collar.

2 Trim of excess fat and cut into 20 mm steaks.

3 Collar steaks.

Position of the collar.

1   Collar of pork – bone-in.

2   Remove the first chop at the side of the head as this part is tough and should be used for trim.

3   Cut the remainder of the collar into chops of 20 mm thickness.

4   Chops – collar.

Position of the collar.

1 Boneless trimmed collar of pork.

2 Cut the collar into halves and secure both joints with roasting bands at 10 cm intervals. Cut between bands to create daubes.

3 Daubes – collar.

Dice (collar 90% VL)

Position of the collar.
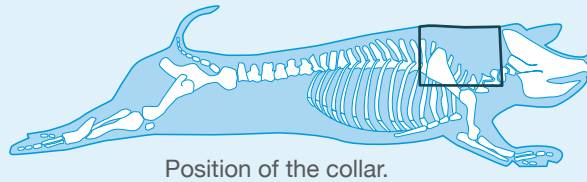
1 Collar of pork – boneless.

2 Collar of pork – boneless. Trim collar to 90% VL and dice.

3 Dice (collar 90% VL).

Loin Joint – boneless and rindless

Position of the loin.
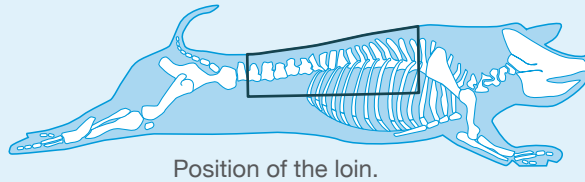
1   Loin – boneless, rindless.

2   Loin – boneless, rindless. Maximum fat level 10 mm.

3   Roll the joint and secure at regular intervals with roasting bands or string.
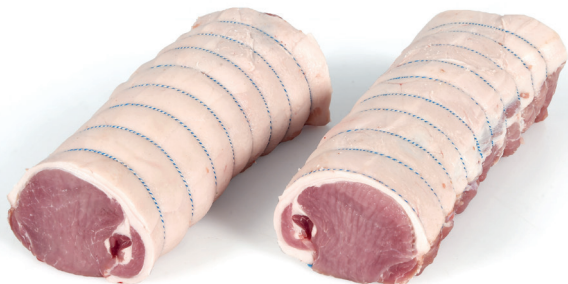
4   Loin joint – boneless and rindless.

T-Bone Chops

Position of the lumbar section of the loin.
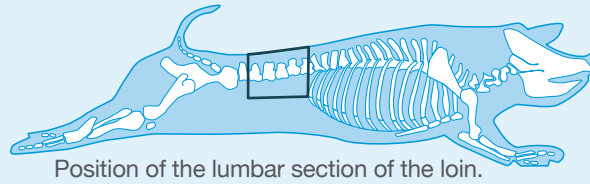
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1 Loin of pork without rind.
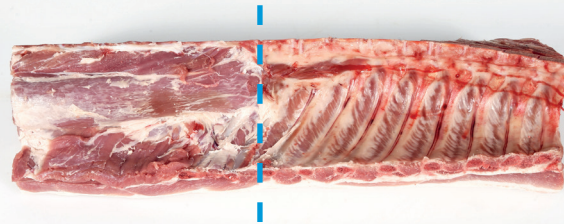
2 The rib section (thoracic) of the loin needs to be removed.

3 Cut the fillet section (lumbar) between the vertebrae into T-bone chops.

4 T-bone chops.

Chops – rib section of the loin

Position of the rib section of the loin.
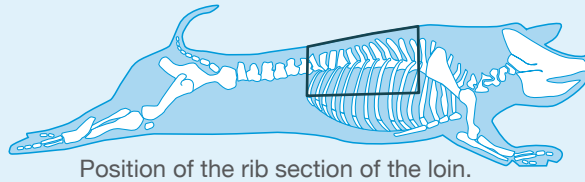
1   Loin of pork without rind.
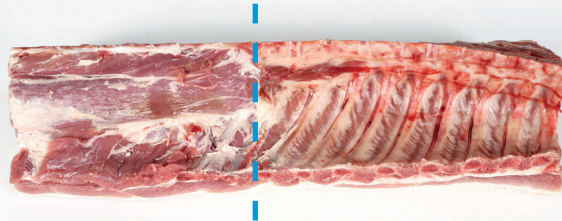
2   The fillet section (lumbar) of the loin needs to be removed. The rib section (thoracic) is cut into 20 mm thick chops.

3   Chops – rib section of the loin.

Position of the rib section of the loin.
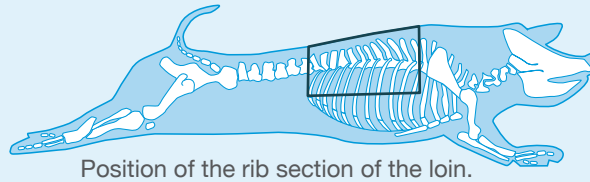
1 Loin of pork.

2 The ribs are sawn through at a point where they join the vertebrae.

3 The ribs are removed from the loin by sheet boning.

4 Loin ribs.

Loin Steaks – boneless
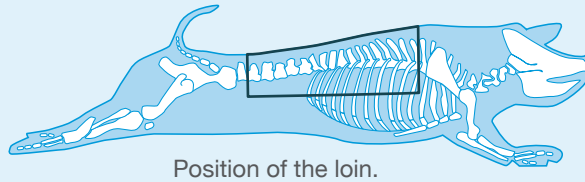
Position of the loin.

1 Loin of pork – boneless, rindless.

2 The loin is cut into steaks of 20 mm maximum thickness. Maximum fat thickness 8 mm. Tail of the loin not to exceed 25 mm.
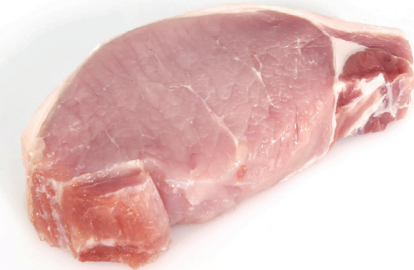
3 Loin steak – boneless.
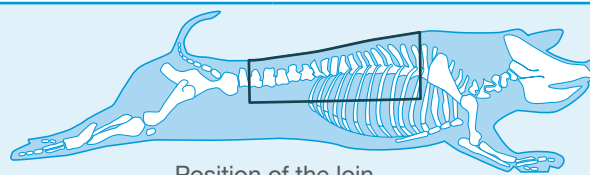
Position of the loin.

1 Boneless, rindless loin of pork. Maximum fat thickness 8 mm. Tail of the loin not to exceed 25 mm.
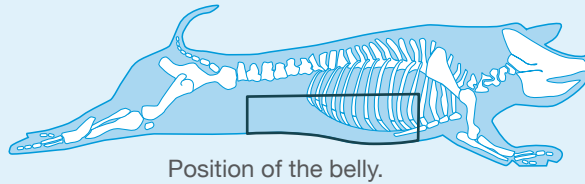
2 Butterfly cut the loin into valentine steaks, maximum thickness 20 mm.
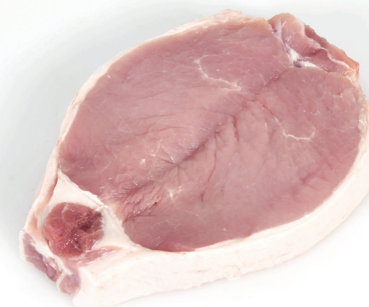
3 Valentine steaks.

1   Bone-in belly.

2   Remove rind from the belly.

3   Remove breast bone (sternum) and expose rib cartilage.

4   Remove ribs and cartilage by sheet boning.

5   Belly – boneless, rindless.

6   Belly – boneless, rindless.

Belly Roast – boneless and rindless
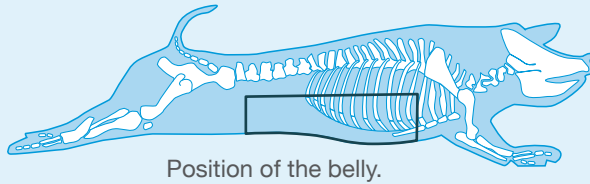
Position of the belly.

1 Bone-in belly.

2 Remove rind and excess fat from the belly. Maximum fat thickness not to exceed 10 mm.

3 Remove breast bone (sternum) and expose rib cartilage. Remove ribs and cartilage by sheet boning.
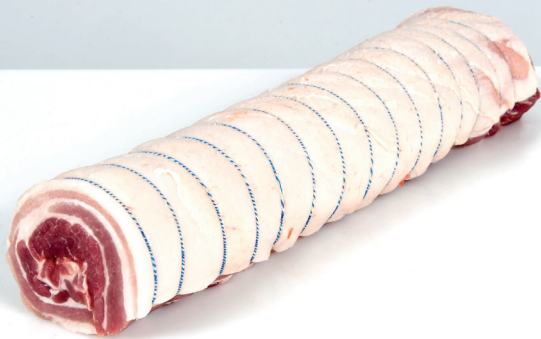

4 Roll belly and secure with string or roasting bands at regular intervals.

5 Belly roast – boneless and rindless.

1 Bone-in belly.

2 Remove rind and excess fat from the belly. Maximum fat thickness not to exceed 10 mm.

3 Remove breast bone (sternum) and expose rib cartilage.

4 Remove ribs and cartilage by sheet boning.

5 Boneless, rindless and trimmed belly.

6 Cut belly into individual portions of required weight.
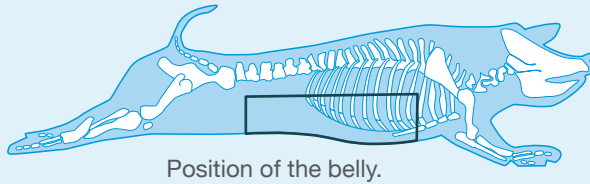
1 Bone-in belly.

2 Remove rind and excess fat from the belly. Maximum fat thickness not to exceed 10 mm

3 Remove breast bone (sternum) and expose rib cartilage.

4 Remove ribs and cartilage by sheet boning.

5 Boneless, rindless and trimmed belly.

6 Roll and skewer belly, and cut into portions.

Position of the rib section of the belly.
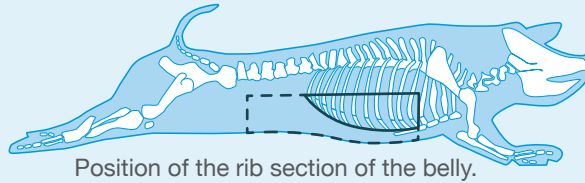
Code: **3020**

1   Rindless belly of pork.

2   Rindless belly of pork.

3   The breast bone is removed.

4   Sheet bone the ribs, including the soft bones.

5   Spare rib – belly.

6   Spare rib – belly.

1 Remove breast bone (sternum) from the bone-in belly

2 Remove rind and excess fat from the belly. Maximum fat thickness not to exceed 10 mm

3 Cut the belly between the ribs to create belly slices.

4 Belly slices – bone-in, rindless.

Position of the belly.

1 Belly – rindless. Fat thickness of outer layer not to exceed 5 mm.

2 Remove the section of the belly by following the outer contours of the last rib and the outer edge of the soft bones.


3 Cut the rack into required portions …
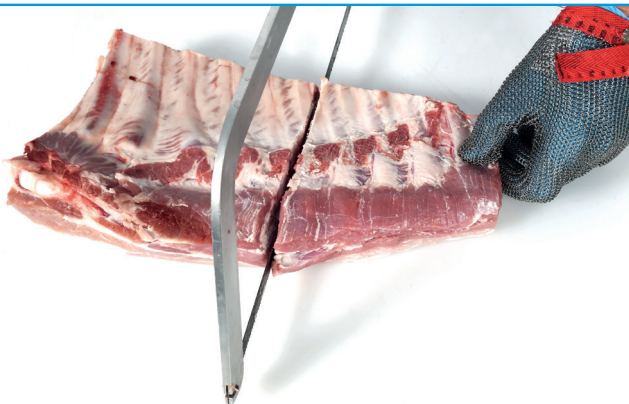
4 … as illustrated.

5 King rib rack.
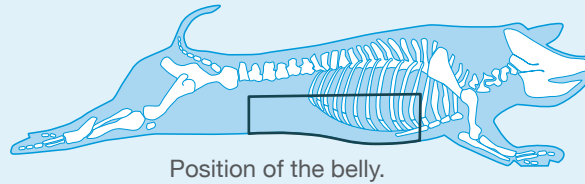
Position of the belly.

1 Belly – rindless. Fat thickness of outer layer not to exceed 5 mm.

2 Remove the section of the belly by following the outer contours of the last rib and the outer edge of the soft bones.

3 Cut the king rib in two lengthways and then into individual portions containing two ribs, as illustrated.

4 King rib – belly, portions.

Carvery Leg Roast – boneless

Position of the leg and chump.
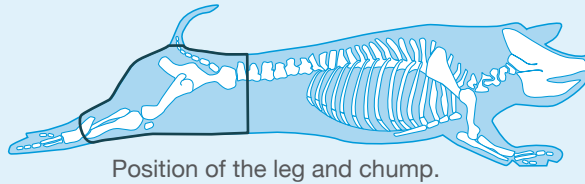
1 Leg and chump of pork.
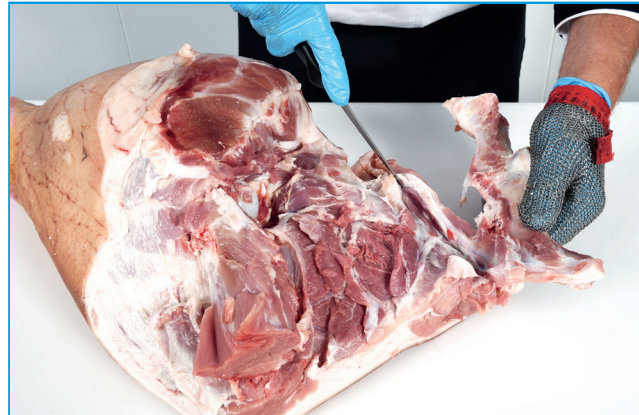
2 Remove the lumbar vertebrae, hip and tail bones.

3 Remove the topside by following the natural seams between the topside and thick flank.

4 Remove remaining bones (femur, patella tibia and fibula).

5 Boneless leg of pork with topside removed.

6 Remove the shin muscles and …

7 … the head of the fillet.

8 Remove the thick flank …

9 … by following the natural seams.

10 Remove excess rind and …

11 … trim remainder of excess fat and gristle.
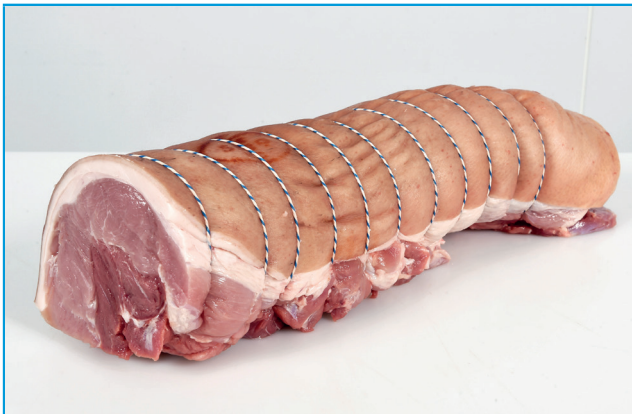
12 Roll joint and secure with string at regular intervals.
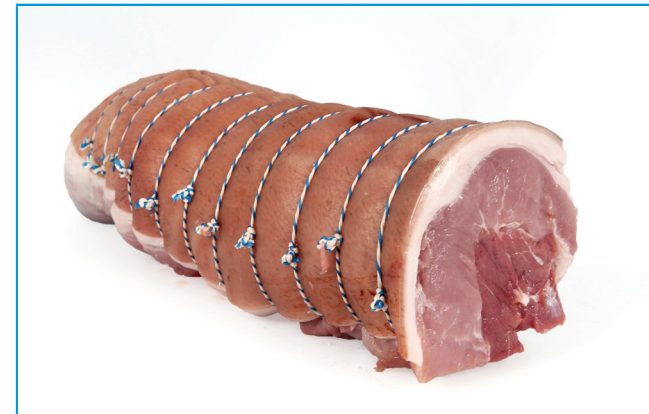
13 Carvery leg roast.
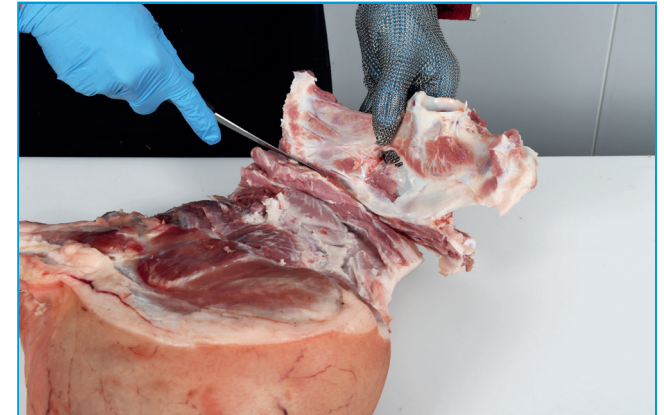
Position of the leg and chump.
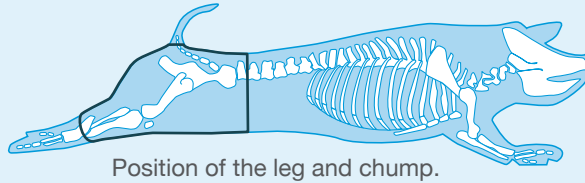
Code: **2032**

1   Leg and chump of pork.

2   Remove the thin muscle situated on top of the hip bone.

3   Remove the lumbar vertebrae, hip and tail bones.

4   Peel back the layer of rind and fat from the topside.

5   Remove the topside by following the natural seams.

6   Remove the shank.

7 Shank – hindquarter.
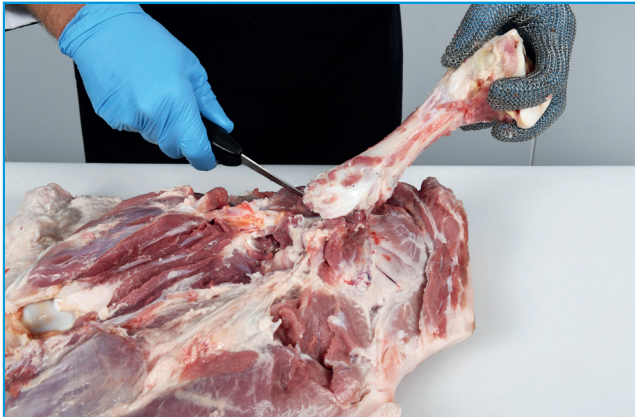
8 Remove the femur.

9 Remove the patella.

10 Trim and remove …

11 … excess gristle and fat.

12 Follow the silverside gristle and …

13 … separate the silverside, salmon cut and heel muscle …

14 … from the rump and thick flank.

15 Remove excess rind from …

16 …..both muscle blocks.

17 Fold rind around both joints.

18 Score rind and secure with string at regular intervals.

19 Leg joint – boneless.

Mini Joint (350–450 g) – Topside

Position of the topside.
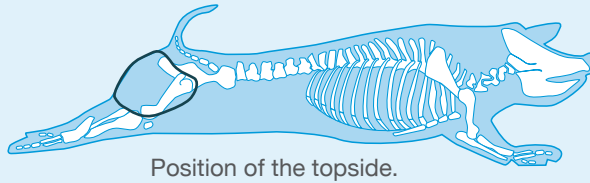
1 Excess fat and gristle is removed from the topside. The remainder is cut into 350–450 g mini joints.

2 Mini joint – topside

Leg Steaks – Thick Flank

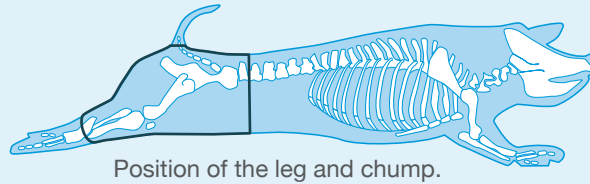Position of the thick flank.
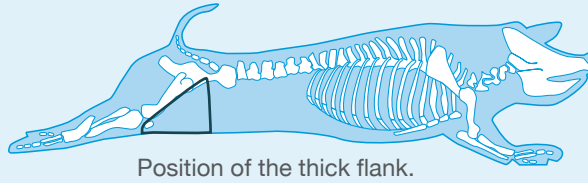
1   Thick flank.

2   Trim the thick flank of excess fat and gristle. Remove the tri-tip muscle and cut into steaks of 15–20 mm thickness.

3   Leg steaks – thick flank.

Stir-Fry (leg muscles 98% VL)

Position of the leg and chump.

1 Trimmed to 98% VL topside without the gracilis muscle …

2 … silverside, salmon cut …

3 … thick flank …

4 … and rump muscles can be cut into stir-fry strips. Maximum size 1 cm x 1 cm x 6 cm

5 Stir-fry (leg muscles 98% VL).

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