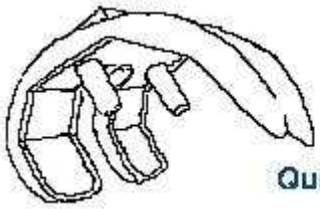

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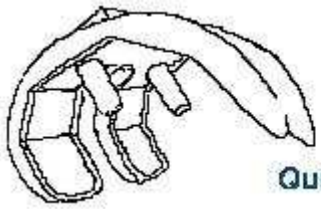
SPECIFICATION FOR AUSTIN MOORE & THOMPSON STEMS

SPECIFICATION N° MPC/GEN 2

MATERIAL	**Co Cr to BS 7252 Part 4, ASTM F75.**
HEAT REATMENT	Castings shall be heat treated in a vacuum atmosphere at **1200°C** for **4** hours, and rapid gas quenched in Nitrogen.
	TESTING
RADIOGRAPHY	Castings shall be x-rayed on an **AQL** basis of **AQL 2.5, level II.** The castings shall have 1 plan shot and be assessed against **ASTM E192 plate 2**.
FLUORESCENT PENETRANT INSPECTION	Each casting shall be Fluorescent Penetrant Inspected in accordance with **ISO 3452 1994**, and inspected to **ISO 9583 1993 Table Al, Inspection Area B**. All castings will be processed in the 'As Cast' condition.
MARKING	Please specify your individual requirements Each x-rayed casting can be identified with a unique number to maintain traceability. All castings can be marked with the batch number if required.
FINISH	Castings can be supplied either: 1.) As Cast – Grit Blasted (#60 grit), head un-machined, gates ground flush to **+1.0 mm.** 2.) Fully Finished – Linished and Grit blasted stem (#60 grit), head machined and polished.

KEY			
AQL= ACCEPTED QUALITY LEVELS		CoCr	= COBALT CHROME
F/F	= FULLY FINISHED	mm	= MILLIMETRES
G	= GRIT BLASTED	AMIB	= AUSTIN MOORE 'I-BEAM'
ST/ST	= STAINLESS STEEL	TIR	= TOTAL INDICATOR READING



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SPECIFICATION N° MPC/GEN 2

FULLY FINISHED STEMS WILL BE SUPPLIED TO THE CRITERIA OF SPECIFICATION AM/T/FF/G

Castings will be **100%** inspected to standard **AM/T/FF/G.**

The fully finished components shall be supplied in the non-passivated and non-sterilized condition. However, this can be provided at an additional cost.

CERTIFICATION

Each batch of castings will be supplied with certification, the minimum being a Certificate of Conformity quoting Mechanical Test, Chemical Analysis, X-ray Certification numbers, Quantity despatched, Customer Order Number and Customer Part Number.

A statement will be included on the Certificate of Conformity to confirm all product supplied has been Fluorescent Penetrant Inspected.

PACKAGING

'As Cast' castings shall be packaged to prevent damage during transit.

Each 'fully finished' casting shall be protected by covering the head with a tubular bandage.

The castings shall be individually sealed in a polythene bag. Each bagged casting shall be placed in a cardboard box separated from each other by bubble pack or equivalent.

Each bag shall be labeled with the following information:

MPC Batch N°

Description

Size

Material Code "C" (for Cobalt Chrome)

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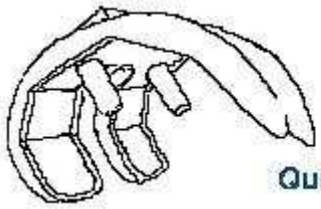

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SPECIFICATION N° MPC/GEN 2

BRIEF DESCRIPTION OF METHOD OF MANUFACTURE OF AUSTIN MOORE & THOMPSON STEMS

The components are Investment Cast in two pieces, a stem and a cap. These two components are subsequently electron beam welded together.

MACHINING OF AUSTIN MOORE & THOMPSON STEMS

Example: MPC cast designation for **'As Cast'** head diameters runs from diameter **39 mm** to **55 mm** in **2 mm** increments. Even sizes are obtained only in the "Fully Finished" condition by machining from the next size down.

A part designated as a diameter **47 mm** has an actual head diameter of **50 mm**. This allows the part to be machined down to

1.) **47 mm**, the optimum head diameter, or
2.) **48 mm**, i.e. **0.5 mm** thicker wall than the optimum.

It must be noted that caution is required when machining castings. The castings must run "true" within **0.5 mm TIR**, in the machining fixture, to prevent wall thickness inconsistency.

LATENT DEFECTS

Up to **3%** latent defects will be accepted by the customer on 'as cast' products only.

A **3 month** liability period applies to all castings from the date of delivery to the customer's site.

This ensures rapid feedback and corrective action of potential problems.

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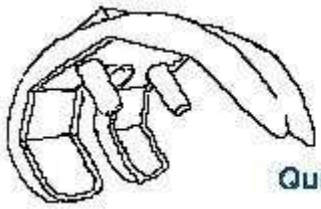

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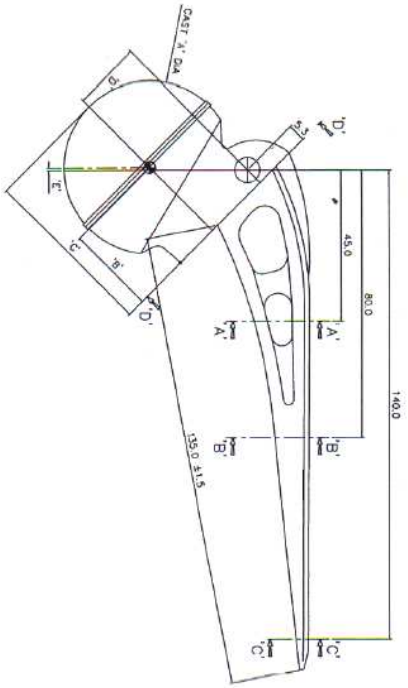
CORRELATION LIST OF AUSTIN MOORE STEM LENGTHS & HEAD SIZES

STEM TYPE	Stem Length & Fully Finished Head Diameter		Designated "As Cast" Head Diameter
AUSTIN MOORE STANDARD	127 mm	38 mm 39 mm 40 mm	39 mm
	127 mm	41 mm 42 mm	41 mm
	127 mm	43 mm 44 mm	43 mm
	127 mm	45 mm 46 mm	45 mm
	140 mm	47 mm 48 mm	47 mm
	140 mm	49 mm 50 mm	49 mm
	152 mm	51 mm 52 mm	51 mm
	152 mm	53 mm 54 mm	53 mm
	152 mm	55 mm 56 mm	55 mm
AUSTIN MOORE NARROW	137 mm	39-55mm	I.e. One Stem Length



MACHINING OF AUSTIN MOORE AND THOMPSON STEMS

MPC cast designation for "As Cast" head diameters runs from diameter **39 mm** to **55 mm** in **2 mm** increments. Even sizes are obtained only in the "Fully Finished" conditions by machining from the next size **down.**

Example: A part designated as a diameter **47 mm** has an actual "As Cast" head diameter of **50 mm**. This allows the part to be machined down to:

a) **47 mm** the optimum head diameter.

b) **48 mm** i.e. **0.5 mm** thicker wall than the optimum.

It must be noted that caution is required when machining casting. The castings must run "true" within **0.5 mm** T.I.R., in the machining fixture, to prevent wall thickness inconsistency.

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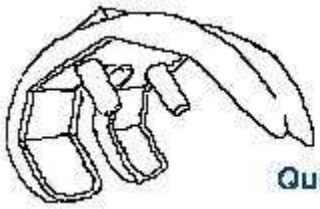

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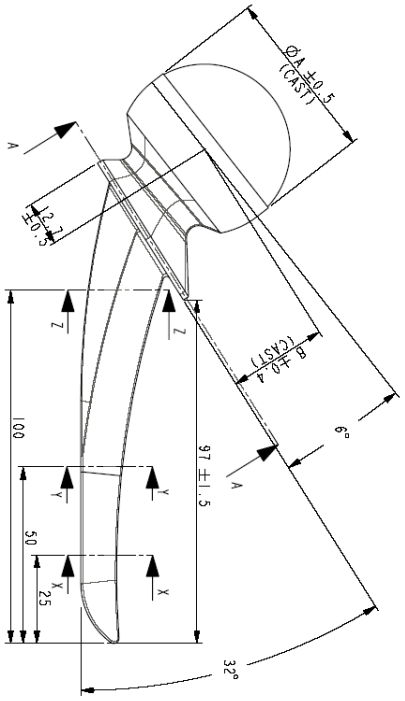
CORRELATION LIST OF THOMPSON STEM LENGTHS & HEAD SIZES

STEM TYPE	Fully Finished Head Diameter	Designated "As Cast" Head Diameter
THOMPSON STEMS	38 mm	39 mm
	39 mm	
	40 mm	
	41 mm	41 mm
	42 mm	
	43 mm	43 mm
	44 mm	
	45 mm	45 mm
	46 mm	
	47 mm	47 mm
	48 mm	
	49 mm	49 mm
	50 mm	
	51 mm	51 mm
	52 mm	
	53 mm	53 mm
	54 mm	
	55 mm	55 mm
	56 mm	



MACHINING OF AUSTIN MOORE AND THOMPSON STEMS

MPC cast designation for "As Cast" head diameters runs from diameter **39 mm** to **55 mm** in **2 mm** increments. Even sizes are obtained only in the "Fully Finished" conditions by machining from the next size down.

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b) **47 mm** the optimum head diameter.

b) **48 mm** i.e. **0.5 mm** thicker wall than the optimum.

It must be noted that caution is required when machining casting. The castings must run "true" within **0.5 mm T.I.R.** in the machining fixture, to prevent wall thickness inconsistency.

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