



Ducast Factory LLC
Quality plan for Access covers and Grates AS 3996-2019

Aspect of inspection	Method of inspection	Frequency of inspection	Document retention period
(A) Receiving inspection			
Steel/iron scrap	Chemical analysis	Each delivery	1 Year
Pig iron	Chemical analysis	Each delivery	1 Year
Scrap returns	Chemical analysis	Each ladle	1 Year
Additives	Supplier test certificate	Each delivery	1 Year
New sand for moulds/cores	Supplier test certificate	Each delivery	1 Year
	Sieve Analysis	Each delivery ⁽¹⁾	
Recycled sand for moulds/cores	Not applicable		1 Year
(B) Process control			
Moulding sand characteristics	Laboratory	Minimum once in a shift	1 Year
Mould	Visually	Regularly	-
Ductile Iron additives	Weigh/measure	Each treatment ladle	-
Pouring temperature	Measure	Frequently	1 Year
Composition of metal/analysis	Spectro Analysis	Each treatment	5 Years
<u>Mechanical Properties</u> - tensile strength - elongation - nodularity	AS 1831 Ductile Cast Iron	1 Test bar /Day (Gr.500/7)	5 Years
		Each treatment ladle	
(C) product testing of finished products			
General for surface defects	Visual	Every unit	5 Years
Dimesnions as per drawing	measure	Once per batch (2)	5 Years
Test load (Load Bearing Capacity)	Test	Once per batch (2)	5 Years
Water tightness	Test at third party lab	At any change of design/material	5 Years
Gas tightness	Test at third party lab	At any change of design/material	5 Years
Slip resistance	Test at third party lab	At any change of design	5 Years
Cover uplift test	Test at third party lab	At any change of design	5 Years
Marking	Visual	Once per batch	1 Year
Painting	Measure (Thickness)	Random ⁽⁴⁾	1 Year
(A-6) Calibration, Packaging, Non Conforming Product			
Tensile Testing Machine	Calibration Certificate	Once in a year	1 Year
Load testing machine	Calibration Certificate	Once in a year	1 Year
Other measuring instruments	Calibration Certificate	Once in a year ⁽⁵⁾	1 Year
Packaging	Visual	Regularly	-
Non Conforming products	Inspection	Daily	1 Year
(1) Random checks for material received from suppliers having certified quality assurance system.			
(2) Every modification on the pattern			
(3) At least once in 12 months.			
(4) Only for epoxy coatings			
(5) Calibration or verification with calibrated gauges.			
Original: Master List	Document Reference No.:	DF:F:QP:01 Rev.03	
	Date:	15.08.2019	
	Authority:	Quality Controller	
Copy: Quality Control	Signature:	 DUCAST FACTORY L.L.C DUCAST QA/QC DEPARTMENT	