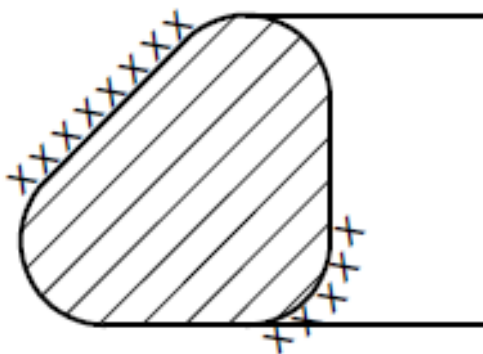


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## **General Overview**

This document should be referred to as a guide during the inspection of Delta seals. The guide should be used along with the DJ, Drawing and the JW 200 009 standard. The diagram below shows a general view of the seal and its main features.



Areas highlighted by the crosses are the critical sealing surfaces. Other areas are non-critical.

All seals are to be inspected in accordance with JW200 009 grade S (see annex 1 & 2) and the following:

- Seals are not to be Rotofinished
- Recess flowmarks are not acceptable
- Foreign material embedded in the seal surface is not acceptable
- No blemishes are allowed in critical sealing areas
- All excess flash to be removed to leave a smooth clean finish
- There should be no visible witness marks at the join area
- Minor blemishes and damage marks to be cleaned unless within the JW200 009 grade S standard on non-critical areas
- Seals to be inspected under 2X magnification
- Material flow discolouration is acceptable providing no recess or splits are visible when flexed
- Seals can be cleaned using mild abrasive emery and blended with scotchbrite

Offset, mismatch or tool misalignment is acceptable providing it is within the limits of JW200 009 grade S (see annex 2)

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## OK/NOK

Join witness mark:



**NOK**

\*Marks may be dressed out and rechecked to ensure no cracks or splits are present in this area.

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**Flash line (burr trace):**



**NOK**

All traces of flash must be removed to leave a clean smooth finish

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**Surface condition and damage marks on non-critical sealing areas:**



**NOK**

Above acceptable limit according to annex 1 and 2



**OK**

Within acceptable limit according to annex 1 and 2



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**NOK**

Poor surface finish i.e. dirty mould

**Cracks and splits:**



**NOK**

Any evident cracking or splitting is not acceptable



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**Contamination/foreign material:**



**NOK**  
Contamination/foreign material within the seal is not acceptable

**If any doubt – ask!**

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## JW 200 009 Grade S

TABLE 1

Surface Imperfection Type	Diagrammatic representation
Off-register, mismatch (offset)	
Combined flash (combination of offset, flash and parting line projection)	
Backrind	
Excessive trimming (radial tool marks not allowed)	
Flow marks (radial orientation of flow marks is not permissible)	
Non-fills and Indentations (including parting line indentations)	
Raised Marks (this imperfection is not covered in BS ISO 3601-3).	

c - Round edges.

Annex 1 – Extract from JW 200 009 Table 1

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**TABLE 1S**

**GRADE S (for diagrams see Table 1)**

SURFACE IMPERFECTION		LIMIT						
		"O" RING SECTION						
		Up to & incl. 2.25	Above 2.25 Up to & incl. 3.15	Above 3.15 Up to & incl. 4.50	Above 4.50 Up to & incl. 6.30	Above 6.30 Up to & incl. 8.40	Above 8.40 Up to & incl. 12.50	Above 12.50
Off Register, Mismatch (offset)	e	0.08	0.08	0.10	0.12	0.13	0.18	0.25
Combined Flash	x	0.10	0.10	0.13	0.15	0.15	0.20	0.29
	y	0.10	0.10	0.13	0.15	0.15	0.20	0.29
	a	When the flash can be differentiated, it shall not exceed 0.7mm.						
Backrind	g	0.10	0.15	0.20	0.20	0.30	0.40	0.50
	u	0.05	0.08	0.10	0.10	0.13	0.16	0.20
Excessive Trimming	n	n shall be not less than the "O" Ring cross-section diameter bottom limit (See clause 7.2)						
Flow Marks	v	1.50#	1.50#	5.00#	5.00#	5.00#	6.50#	8.00#
	k	0.05	0.05	0.05	0.05	0.05	0.07	0.10
Non-Fills & Indentations	w	0.15	0.25	0.40	0.63	1.00	1.25	1.50
	T	0.08	0.08	0.10	0.10	0.13	0.21	0.30
Raised Marks **	p	0.10	0.10	0.15	0.15	0.20	0.25	0.30
	q	0.05	0.05	0.05	0.05	0.08	0.08	0.10

# Or 0.05 x 'O' Ring internal diameter, whichever is the greater, subject to a maximum of 30 mm.

\*\* This imperfection is not covered in BS ISO 3601-3.

Annex 2 – Extract from JW 200 009 Table 1S