

## SCRATA Comparators for the Definition of Surface *Quality* of Steel Castings

## SCRATA Comparators for the definition of the Surface *Texture* of Precision Steel Castings

Purchasers of steel castings can now specify their surface quality requirements more accurately, using a set of visual-tactile comparators developed by Castings Technology International (CTI).

There are currently three different sets available to aid the agreement and determination of acceptable surface quality of steel castings, and one specifically for precision steel castings (i.e. investment castings).

Sixteen categories are covered by the sets, including:

(Steel Castings)

- Surface Roughness (A)
- Surface Inclusions (B)
- Gas Porosity (C)
- Laps & Cold Shuts (D)
- Scabs (E)
- Chaplets (F)
- Surface Finish – Thermal Dressing (G)
- Surface Finish – Mechanical Dressing (H)
- Welds (J)
- Hot Tears
- Mechanical Dressing - Chipping

(Precision Steel Castings)

- Resin Shell Process (V)
- Lost Polystyrene Process (W)
- Shaw Process (X)
- Lost Wax Process (Y)
- Fettled Surfaces (Z)



Under each category, up to five varying levels of surface texture are present.

Acceptable quality levels are agreed between the foundry and the purchaser at the time of the order. Acceptance of the finished casting is based on a comparison of the casting surface with the relevant replica.

The replicas are made in hard wearing plastic, and are supplied in a boxed set. An explanatory booklet is provided with the steel castings sets and a copy of BS7900 with the precision steel castings set.

The comparators have been approved by several standard bodies. They are incorporated in many standards, such as ASTM A802, SP-55, BS7900:1998, JIS-G0588, EN 12454:1998, EN 1370:1997 & ISO 11971.

## Steel Castings

There are 48 comparator plates from 11 categories covering the different surface features. These plates are available in three different sets, one of which is intended for use as a sales agreement tool.

The table below shows the plates contained in each set.

Plate size for assessment: 150 x 100mm  
 Plate size for sales agreement: 50 x 50mm

**Need to work to the 'EN' & 'ISO' standards?**

**Then why not complete your set**

If you already have an ASTM A802 shorter set, why not **upgrade** to the full set. This will give you the ability to work to almost any visual surface comparison standard.

The upgrade will give you a new box to house 48 comparator plates, the 17 extra plates and a 48 set manual.

Name	No. of Plates	Plate Categories											
		A	B	C	D	E	F	G	H	J	Hot Tears	Chipping	
Full Set	48	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-2	1
ASTM A802 Shorter Set	31	1-4	1,2,4,5	1-4	1,2,5	3,5	1,3	1,2,3,5	1,3,4,5	1,2,3,5	-	-	-
Upgrade To Full Set	17	5	3	5	3,4	1,2,4	2,4,5	4	2	4	1-2	1	-
Pocket Set	4	1-4	-	-	-	-	-	-	-	-	-	-	-

## Precision Steel Castings

This set contains 14 comparator plates from 5 categories. A copy of BS7900:1998 is also supplied with set.

The table below shows the identities of the plates contained.

Plate size 60 x 60mm

Name	No. of Plates	Plate Categories											
		V	W	X	Y	Z							
Precision Steel Castings Full Set	14	1-3	1-3	1-3	1-2	1-3							