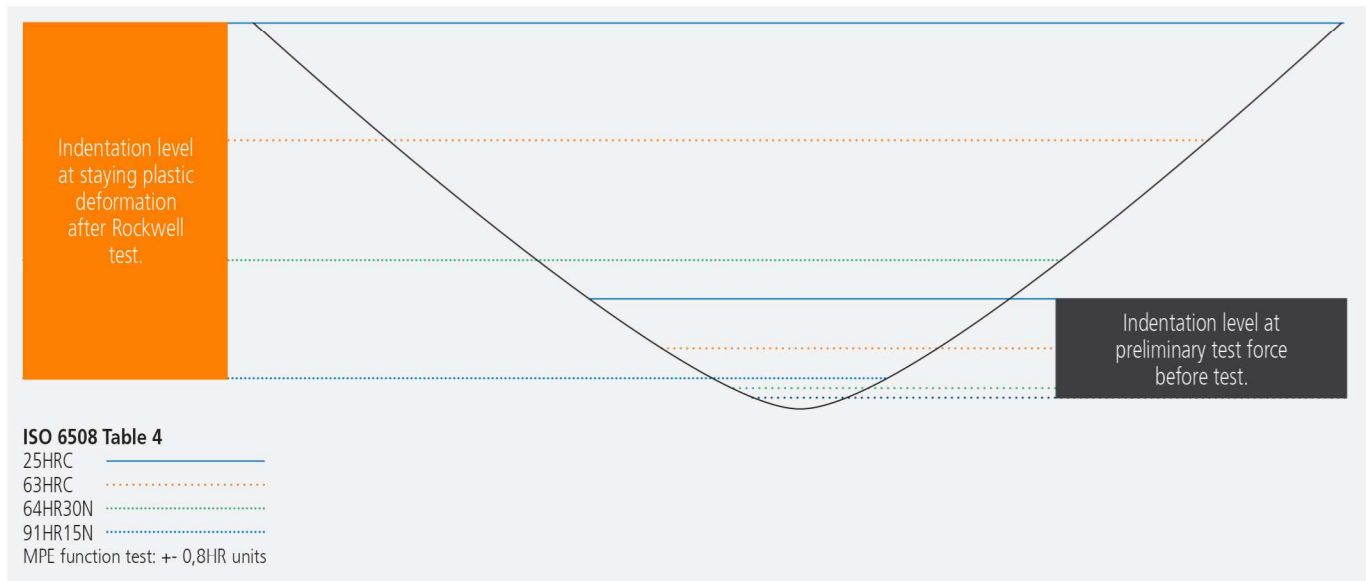


## Rockwell Diamond Indenter - Function Test

Additionally, the geometrical specification for the calibration of Rockwell diamond indenters, a „function test“ is described in the relevant standards ISO 6508-2 and ASTM E-18. The intention is to verify the applicability of the indenter in regard to various indentation depth levels under different test forces. The diagram shows 4 indentation levels, as described in the ISO standard.



63DIA001 Table 4  
Alternate hardness levels for diamond indenters used for Rockwell regular and superficial scales ( A, C, D, and N )

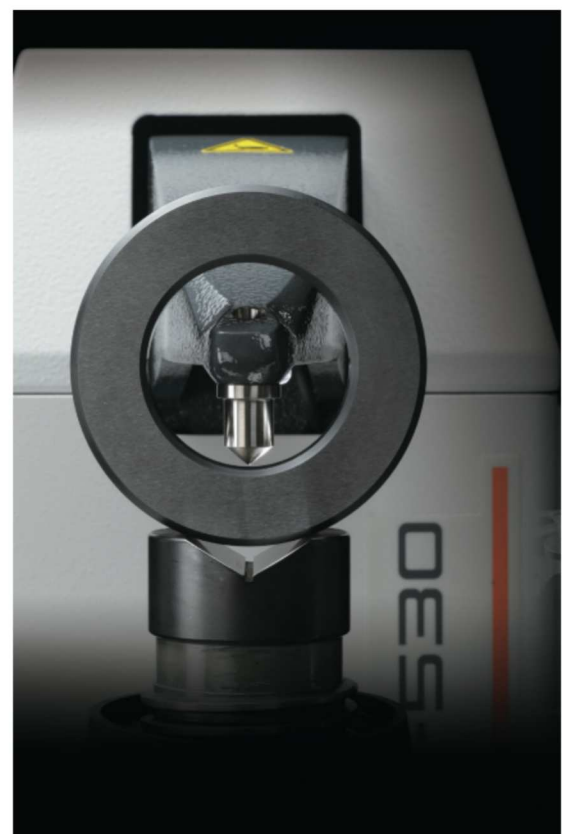
| Scale | Nominal Hardness | Ranges   |
|-------|------------------|----------|
| HRC   | 25               | 22 to 28 |
| HRC   | 63               | 60 to 65 |
| HR30N | 64               | 60 to 69 |
| HR15N | 91               | 88 to 94 |

63DIA021 Table 5  
Hardness levels for diamond indenters to be used for Rockwell regular scale testing only ( A, C, and D )

| Scale | Nominal Hardness | Ranges   |
|-------|------------------|----------|
| HRC   | 25               | 22 to 28 |
| HRC   | 63               | 60 to 65 |

63DIA022 Table 6  
Hardness levels for diamond indenters to be used for Rockwell superficial scale testing only ( N )

| Scale | Nominal Hardness | Ranges   |
|-------|------------------|----------|
| HR15N | 91               | 88 to 94 |
| HR30N | 64               | 60 to 69 |
| HR45N | 25               | 22 to 29 |

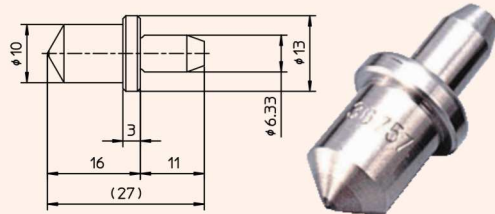


## Rockwell Diamond Indenter

| Code number | Description   | Test Method 1 | Standard 1 | Standard 2 | Calibration       | AR-ARK Series | HR-100-200-400MR | HR-300-400MS | HR-500 Series | HR-600 Series |
|-------------|---|---------------|------------|------------|-------------------|---------------|------------------|--------------|---------------|---------------|
| 63DIA001    | Diamond Indenter Rockwell w. function test table 4, HRA HRC HRD HRN | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             |                  | •            | •             | •             |
| 63DIA021    | Diamond Indenter Rockwell w. function test table 5, HRA HRC HRD     | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             | •                | •            | •             | •             |
| 63DIA022    | Diamond Indenter Rockwell w. function test table 6, HRN             | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             |                  | •            | •             | •             |
| 63DIA004    | Diamond Indenter Rockwell w. function test                          | Rockwell      | ASTM E18   |            | DAkkS certificate | •             | •                | •            | •             | •             |
| 63DIA002    | Diamond Indenter Rockwell without function test                     | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             | •                | •            | •             | •             |
| 63DIA023    | Diamond Indenter Rockwell without function test                     | Rockwell      | ISO 6508-2 | ASTM E18   | DAkkS certificate | •             | •                | •            | •             | •             |
| 63DIA007    | Diamond Indenter Rockwell without function test HR-500, short       | Rockwell      | ISO 6508-2 |            | DAkkS certificate |               |                  |              | •             |               |
| 63DIA008    | Diamond Indenter Rockwell w. function test long type L 28 mm        | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             | •                | •            |               |               |
| 63DIA009    | Diamond Indenter Rockwell w. function test slim type W 6 mm         | Rockwell      | ISO 6508-2 |            | DAkkS certificate | •             | •                | •            | •             | •             |

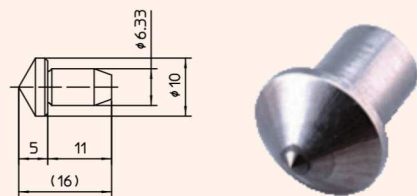
### Standard shape diamond indenter

63DIA001  
63DIA021  
63DIA022  
63DIA004  
63DIA002  
63DIA023



### Short type diamond indenter 63DIA007 for inside testing from 22mm

63DIA007



## Rockwell Ball Indenter

| Code number | Description                              | Test Method 1 | Standard 1 | Standard 2 | Calibration         | AR-ARK Series | HR-100-200-400MR | HR-300-400MS | HR-500 Series | HR-600 Series |
|-------------|--|---------------|------------|------------|---------------------|---------------|------------------|--------------|---------------|---------------|
| 11AAD465    | ø1.5875mm Rockwell carbide ball indenter | Rockwell      |            |            | without certificate | •             | •                | •            | •             | •             |
| 11AAD466    | ø3.175 mm Rockwell carbide ball indenter | Rockwell      |            |            | without certificate | •             | •                | •            | •             | •             |
| 11AAD467    | ø6.35 mm Rockwell carbide ball indenter  | Rockwell      |            |            | without certificate | •             | •                | •            | •             |               |
| 11AAD468    | ø12.7 mm Rockwell carbide ball indenter  | Rockwell      |            |            | without certificate | •             | •                | •            | •             |               |
| 11AAD735    | ø6.35 mm Rockwell carbide ball indenter  | Rockwell      |            |            | without certificate | •             | •                | •            | •             | •             |
| 11AAD742    | ø12.7 mm Rockwell carbide ball indenter  | Rockwell      |            |            | without certificate | •             | •                | •            | •             | •             |



11AAD465



11AAD466



11AAD467



11AAD468

## Rockwell Replacement Balls

| Code number | Description                           | Test Method 1 | Standard 1 | Standard 2 | Calibration         | AR-ARK Series | HR-100-200-400MR | HR-300-400MS | HR-500 Series | HR-600 Series |
|-------------|---------------------------------------|---------------|------------|------------|---------------------|---------------|------------------|--------------|---------------|---------------|
| 19BAA507    | ø1.5875 mm Rockwell carbide ball 1pc. | Rockwell      |            |            | without certificate |               | •                | •            | •             | •             |
| 19BAA508    | ø3.175 mm Rockwell carbide ball 1pc.  | Rockwell      |            |            | without certificate |               | •                | •            | •             | •             |
| 19BAA509    | ø6.35 mm Rockwell carbide ball 1pc.   | Rockwell      |            |            | without certificate |               | •                | •            | •             | •             |
| 19BAA510    | ø12.7 mm Rockwell carbide ball 1pc.   | Rockwell      |            |            | without certificate |               | •                | •            | •             | •             |
| 63BAL013    | ø1.5875 mm Rockwell carbide ball 1pc. | Rockwell      | ISO 6508-2 | ASTM E18   | DAkkS certificate   |               | •                | •            | •             | •             |
| 63BAL014    | ø3.175 mm Rockwell carbide ball 1pc.  | Rockwell      | ISO 6508-2 | ASTM E18   | DAkkS certificate   |               | •                | •            | •             | •             |
| 63BAL015    | ø6.35 mm Rockwell carbide ball 1pc.   | Rockwell      | ISO 6508-2 | ASTM E18   | DAkkS certificate   |               | •                | •            | •             | •             |
| 63BAL016    | ø12.7 mm Rockwell carbide ball 1pc.   | Rockwell      | ISO 6508-2 | ASTM E18   | DAkkS certificate   |               | •                | •            | •             | •             |