

CODICE / Item no.

M151/152

Materiale: acciaio legato da utensili
Material: steel

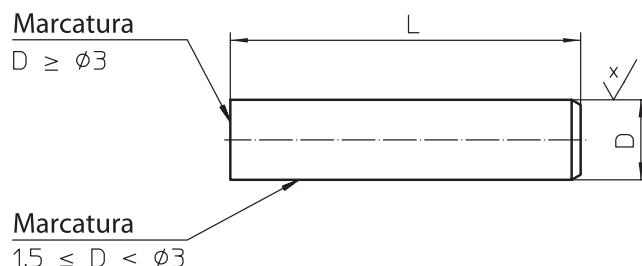
Esecuzione: temperata, rinvenuta, rettificata e lappata misura della spina incisa a partire dal $\varnothing 1,50$
Execution: hardening, temperate, ground and lapped extent of the plug engraved from $\varnothing 1,50$

Durezza: HRC 58...62
Hardness: HRC 58...62

Esempio di ordine:
M151 DxL

Ordering - example:
M151 DxL

SPINA DI CONTROLLO DIN 2269 MEASURING PINS DIN 2269



Le spine di controllo VEITH nei diametri con più di 2 decimali dopo la virgola oppure con tolleranza $\pm 0,0005$ mm (fornibili dal diametro 0,5 mm) richiedono una produzione speciale.

Si forniscono sia spine singole sia serie di spine. Per la conservazione delle spine consigliamo le nostre cassette di custodia di legno.

D Grado di precisione 1: $\pm 0,001$ Grado di precisione 2: $\pm 0,002$	Progress.	L
0,10...0,99	0,01	40
1,00...20,00	0,01	70

CODICE / Item no.

M155/156

Materiale: acciaio legato da utensili
Material: steel

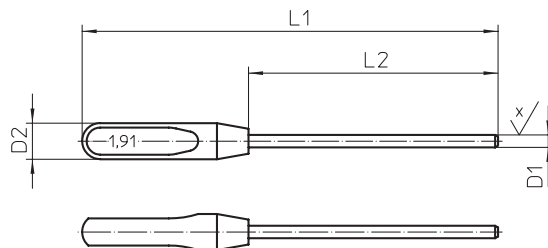
Esecuzione: temperata, rinvenuta, rettificata e lappata
Execution: hardening, temperate, ground and lapped

Durezza: HRC 58...62
Hardness: HRC 58...62

Esempio di ordine:
M155 D1xL1

Ordering - example:
M155 D1xL1

MATRICI DI TRANCIATURA SBOZZATE CON PREFORO EDM SIMILI ISO 8977 EDM MATRIX BLANKS, ISO 8977



Impugnatura plastica nera con misura incisa.

Su richiesta vengono fornite anche spine con impugnatura per diametri superiori.

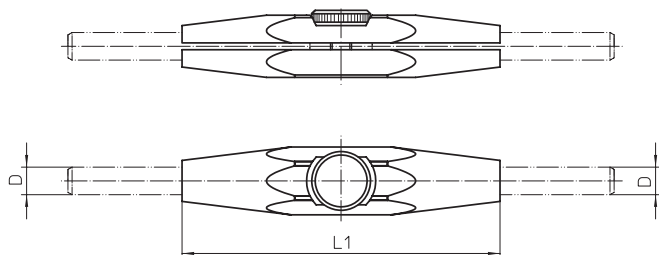
D1 Grado di precisione 1: $\pm 0,001$ Grado di precisione 2: $\pm 0,002$	Progress.	L2	L1
0,10 - 0,99 x 40	0,01	33	53
1,00 - 2,99 x 70	0,01	63	83
3,00 - 9,99	0,01	60	90
10,00 - 12,00	0,01	60	95

SONO FORNIBILI SU RICHIESTA SPINE CALIBRATE IN METALLO DURO

ACCESSORI PER SPINE DI CONTROLLO

PORTA SPINE DI CONTROLLO

MEASURING PINS HOLDER



Portaspine DBGM-Nr.: 1906754

Grandezza	per D	L1
1	1...1,99	59
2	2...4,50	67
3	4,51...6,99	75
4	7...9,50	83
5	9,51...12	91

CASSETTA DI CUSTODIA PER SPINE DI CONTROLLO

STORAGE BOXES FOR MEASURING RINS



Grandezza	DIMENSIONE
1	106 x 66 x 85 mm
2	186 x 106 x 85 mm
3	236 x 136 x 85 mm

Cassetta di custodia per spine di controllo

Diametro	Grandezza 1	Grandezza 2	Grandezza 3
0,10 - 4,99 mm	27 pcs.	78 pcs.	100 pcs.
5,00 - 5,99 mm	24 pcs.	70 pcs.	100 pcs.
6,00 - 6,99 mm	21 pcs.	40 pcs.	100 pcs.
7,00 - 8,99 mm	10 pcs.	40 pcs.	50 pcs.
9,00 - 12,99 mm	6 pcs.	32 pcs.	50 pcs.
13,00 - 17,99 mm	3 pcs.	21 pcs.	25 pcs.
18,00 - 23,99 mm	2 pcs.	12 pcs.	20 pcs.
24,00 - 25,49 mm	2 pcs.	10 pcs.	15 pcs.
25,50 - 30,00 mm	2 pcs.	8 pcs.	10 pcs.

CODICE / Item no.

M159

Materiale: lega di zinco
Material:

Esecuzione: laccato
Execution: lacquered

Esempio di ordine:
M159 Gr.3

Ordering - example:
M159 Gr.3

CODICE / Item no.

AUK 152

Materiale: legno
Material: wood

Esecuzione: laccato nero, con incisi i diametri sulla piastra di alloggiamento

Esempio di ordine:
AUK 152 Gr.2

Ordering - example:
AUK 152 Gr.2

CODICE / Item no.

M153

Materiale: 1.4125
Material: 1.4125

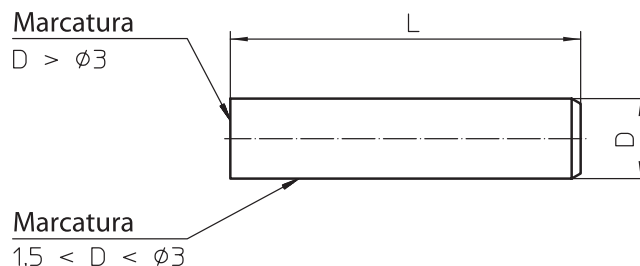
Tolleranza: $\pm 0,001$
Tolerance: $\pm 0,001$

Esempio di ordine:
M153 DxL

Ordering - example:
M153 DxL

SPINE CALIBRATE RESISTENTI AD ACIDI E RUGGINE

MEASURING PINS ACID RESISTANCE STEEL



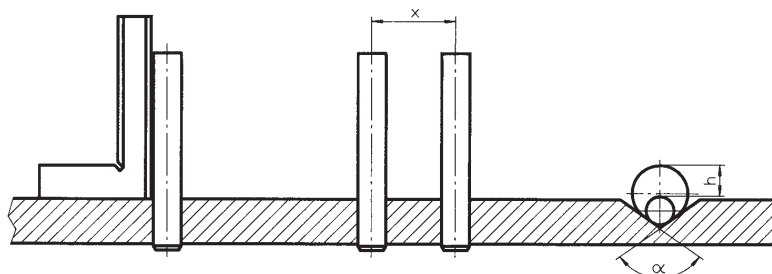
Diametro D	0,5 - 0,99	1,00 - 2,99	3,00 - 5,99	6,00 - 9,99	10,00 - 12,00
Lunghezza L	40	70			

CODICE / Item no.

M155

ESEMPI DI APPLICAZIONE NELLA METROLOGIA

EXAMPLES OF USE FROM MEASUREMENT TECHNIQUE



Controllo fori per precisione dimensionale, rettilinea e angolarità

Controllo distanza tra gli assi

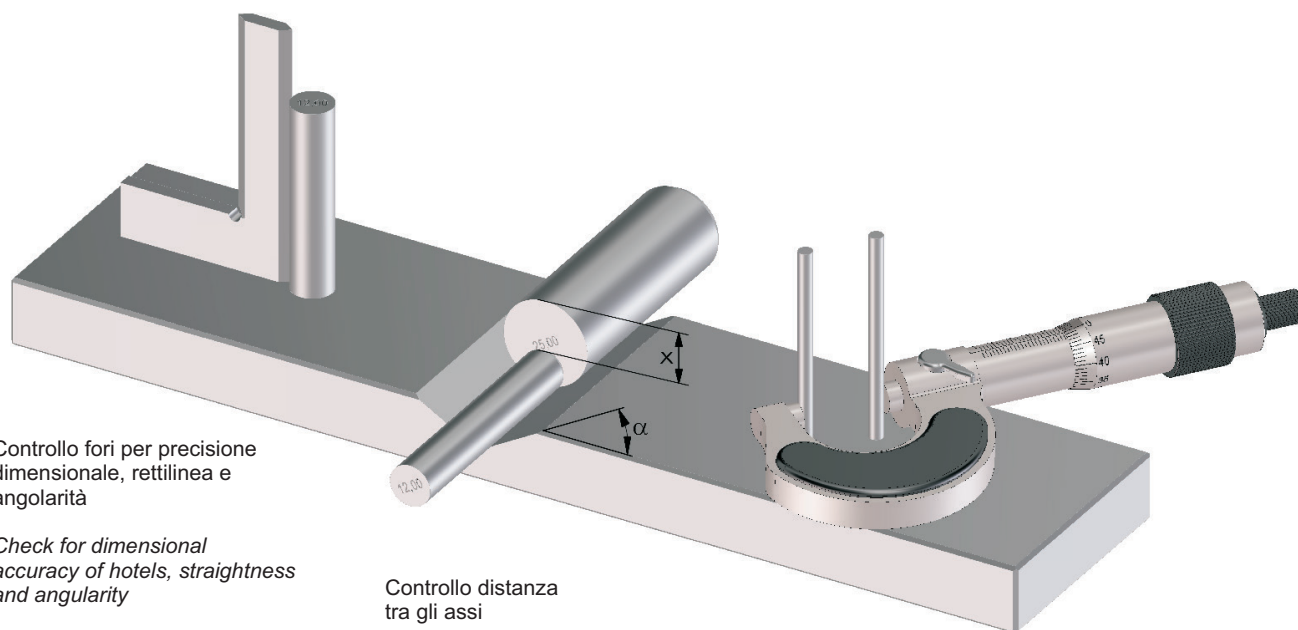
Controllo degli angoli

Come spina di riferimento nella misurazione continua della produzione.

D1 Grado di precisione 1: $\pm 0,001$ Grado di precisione 2: $\pm 0,002$	Progress.	L2	L1
0,55 - 0,99	0,01	33	53
1,00 - 2,99	0,01	63	83
3,00 - 9,99	0,01	60	90
10,00 - 12,00	0,01	60	95

ESEMPI DI APPLICAZIONE NELLA METROLOGIA

EXAMPLES OF USE FROM MEASUREMENT TECHNIQUE



Controllo fori per precisione dimensionale, rettilinea e angolarità

Check for dimensional accuracy of holes, straightness and angularity

Controllo distanza tra gli assi

Checking angles

Controllo degli angoli

Testing center distances



Come spina di riferimento nella misurazione continua della produzione

Adjust rods for continuous measurement in production

CERTIFICATO DI CALIBRATURA

FACTORY CALIBRATION CERTIFICATE

VEITH	Werkskalibrierschein <i>Factory calibration certificate</i>	UP03-WF-001																																																																																																																																																																																																																																																																																																																																															
Werkskalibrierschein Nr. / Certificate No: / 18 Blatt / Page 1 von / of 1																																																																																																																																																																																																																																																																																																																																																	
Kunde / Customer:																																																																																																																																																																																																																																																																																																																																																	
Kunden Nr. / Customer No:		FA Nr. / Order No:																																																																																																																																																																																																																																																																																																																																															
Best.-Nr. / Customer order No:		Bestelldatum / Order Date:																																																																																																																																																																																																																																																																																																																																															
Artikel / Article: Prüfstifte Genauigkeit / Accuracy: 1 (±1 µm) Werkstoff / Material: 1.3505 Typ / Type: M151 Rundheit / Roundness: 0,5 µm Härte / Hardness: 58...62 HRC																																																																																																																																																																																																																																																																																																																																																	
Kalibrierung erfolgt auf Grundlage der Norm, Richtlinie / Norm, guideline: DIN 2269; WN 027, VDI/VDE/DGQ 2618																																																																																																																																																																																																																																																																																																																																																	
Prüfverfahren / Test methods:	Ermittlung des Durchmessers in 3 Ebenen durch Vergleichsmessung zum Prüfstiften-Kalibriersatz und Bildung des arithmetischen Mittelwertes in 3 Ebenen (vorne, mitte, hinten). Ermittlung der Rundheit in 3 Ebenen und Bildung des arithmetischen Mittelwertes. <i>Determining the diameter in 3 levels by comparing measurements to test pins calibration standard and education of the arithmetic mean in 3 levels (front, center, rear).</i> <i>Determination of roundness in three layers and the formation of the arithmetic mean.</i>																																																																																																																																																																																																																																																																																																																																																
Art der Prüfung / Inspection-method: Neuteilprüfung / New part inspection.																																																																																																																																																																																																																																																																																																																																																	
Messergebnisse / Measurement Results:																																																																																																																																																																																																																																																																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pos.</th> <th>Nenn</th> <th colspan="3">Istwert / Actual value mm</th> <th>Rundheit</th> </tr> <tr> <th>No.</th> <th>Nominal</th> <th>vorne</th> <th>mitte</th> <th>hinten</th> <th>Roundness</th> </tr> <tr> <th></th> <th>∅</th> <th>/ front</th> <th>/ center</th> <th>/ rear</th> <th>µm</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>13</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>15</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>17</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>19</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>21</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>23</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>25</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Pos.	Nenn	Istwert / Actual value mm			Rundheit	No.	Nominal	vorne	mitte	hinten	Roundness		∅	/ front	/ center	/ rear	µm	1						2						3						4						5						6						7						8						9						10						11						12						13						14						15						16						17						18						19						20						21						22						23						24						25						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pos.</th> <th>Nenn</th> <th colspan="3">Istwert / Actual value mm</th> <th>Rundheit</th> </tr> <tr> <th>No.</th> <th>Nominal</th> <th>vorne</th> <th>mitte</th> <th>hinten</th> <th>Roundness</th> </tr> <tr> <th></th> <th>∅</th> <th>/ front</th> <th>/ center</th> <th>/ rear</th> <th>µm</th> </tr> </thead> <tbody> <tr><td>26</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>27</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>29</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>33</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>35</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>36</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>37</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>38</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>39</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>40</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>41</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>42</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>43</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>44</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>45</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>46</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>47</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>48</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>49</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>50</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Pos.	Nenn	Istwert / Actual value mm			Rundheit	No.	Nominal	vorne	mitte	hinten	Roundness		∅	/ front	/ center	/ rear	µm	26						27						28						29						30						31						32						33						34						35						36						37						38						39						40						41						42						43						44						45						46						47						48						49						50					
Pos.	Nenn	Istwert / Actual value mm			Rundheit																																																																																																																																																																																																																																																																																																																																												
No.	Nominal	vorne	mitte	hinten	Roundness																																																																																																																																																																																																																																																																																																																																												
	∅	/ front	/ center	/ rear	µm																																																																																																																																																																																																																																																																																																																																												
1																																																																																																																																																																																																																																																																																																																																																	
2																																																																																																																																																																																																																																																																																																																																																	
3																																																																																																																																																																																																																																																																																																																																																	
4																																																																																																																																																																																																																																																																																																																																																	
5																																																																																																																																																																																																																																																																																																																																																	
6																																																																																																																																																																																																																																																																																																																																																	
7																																																																																																																																																																																																																																																																																																																																																	
8																																																																																																																																																																																																																																																																																																																																																	
9																																																																																																																																																																																																																																																																																																																																																	
10																																																																																																																																																																																																																																																																																																																																																	
11																																																																																																																																																																																																																																																																																																																																																	
12																																																																																																																																																																																																																																																																																																																																																	
13																																																																																																																																																																																																																																																																																																																																																	
14																																																																																																																																																																																																																																																																																																																																																	
15																																																																																																																																																																																																																																																																																																																																																	
16																																																																																																																																																																																																																																																																																																																																																	
17																																																																																																																																																																																																																																																																																																																																																	
18																																																																																																																																																																																																																																																																																																																																																	
19																																																																																																																																																																																																																																																																																																																																																	
20																																																																																																																																																																																																																																																																																																																																																	
21																																																																																																																																																																																																																																																																																																																																																	
22																																																																																																																																																																																																																																																																																																																																																	
23																																																																																																																																																																																																																																																																																																																																																	
24																																																																																																																																																																																																																																																																																																																																																	
25																																																																																																																																																																																																																																																																																																																																																	
Pos.	Nenn	Istwert / Actual value mm			Rundheit																																																																																																																																																																																																																																																																																																																																												
No.	Nominal	vorne	mitte	hinten	Roundness																																																																																																																																																																																																																																																																																																																																												
	∅	/ front	/ center	/ rear	µm																																																																																																																																																																																																																																																																																																																																												
26																																																																																																																																																																																																																																																																																																																																																	
27																																																																																																																																																																																																																																																																																																																																																	
28																																																																																																																																																																																																																																																																																																																																																	
29																																																																																																																																																																																																																																																																																																																																																	
30																																																																																																																																																																																																																																																																																																																																																	
31																																																																																																																																																																																																																																																																																																																																																	
32																																																																																																																																																																																																																																																																																																																																																	
33																																																																																																																																																																																																																																																																																																																																																	
34																																																																																																																																																																																																																																																																																																																																																	
35																																																																																																																																																																																																																																																																																																																																																	
36																																																																																																																																																																																																																																																																																																																																																	
37																																																																																																																																																																																																																																																																																																																																																	
38																																																																																																																																																																																																																																																																																																																																																	
39																																																																																																																																																																																																																																																																																																																																																	
40																																																																																																																																																																																																																																																																																																																																																	
41																																																																																																																																																																																																																																																																																																																																																	
42																																																																																																																																																																																																																																																																																																																																																	
43																																																																																																																																																																																																																																																																																																																																																	
44																																																																																																																																																																																																																																																																																																																																																	
45																																																																																																																																																																																																																																																																																																																																																	
46																																																																																																																																																																																																																																																																																																																																																	
47																																																																																																																																																																																																																																																																																																																																																	
48																																																																																																																																																																																																																																																																																																																																																	
49																																																																																																																																																																																																																																																																																																																																																	
50																																																																																																																																																																																																																																																																																																																																																	
Messergebnisse / Oberfläche Rz=0,63 und Härte 58...62 HRC sind innerhalb der Toleranz / Measurement Results: Surface and hardness within tolerance																																																																																																																																																																																																																																																																																																																																																	
Temperatur / Temperature: 20° ± 1°																																																																																																																																																																																																																																																																																																																																																	
Rückführung auf nationale Normale / Traceability: Die Rückführung auf nationale Normale ist durch die jeweils gültige Kalibrierung der Normale sichergestellt / <i>Traceability on national normals secured by valid calibration of normals.</i> Kalibrier-Prüfstiftsatz / <i>Pin gauge</i> VEITH Nr 3957, Kalibrierschein Nr.076235-01/16/10462 v. 18.05.2016 Parallelendmaßsatz / <i>gauge block set</i> : Iden-Nr.: 36268/3500 (1088M) Kalibrierschein Nr.075927-16/10462 v. 18.04.16 Rückgeführt über DAKS-Kalibrierung / <i>Traceability to DAKS calibration</i> : 2189 D-K-15077-01-00 2014-01																																																																																																																																																																																																																																																																																																																																																	
Messunsicherheit / Uncertainty: 0,7 µm + 2,0 x 10 ⁻⁶ x L; mit k=2 Rundheit: U=0,5 µm																																																																																																																																																																																																																																																																																																																																																	
Prüfentscheid / Test decision: Prüfstifte sind innerhalb der Toleranz / Pin gauge within tolerance																																																																																																																																																																																																																																																																																																																																																	
Öhringen, den	Prüfer / Name:	Unterschrift / Sign: _____																																																																																																																																																																																																																																																																																																																																															
Alfred Konrad Veith GmbH & Co. KG																																																																																																																																																																																																																																																																																																																																																	
Verrenberger Weg 1 74613 Öhringen Telefon 07941 / 6 98-0 Fax 07941 / 698-111 Internet: www.veith-kg.de E-Mail: info@veith-kg.de																																																																																																																																																																																																																																																																																																																																																	
Auszüge oder Änderungen bedürfen der Genehmigung der Fa. Veith GmbH & Co. KG. Werkskalibrierschein ohne Unterschrift hat keine Gültigkeit. Extracts or changes need the approval of the company Veith GmbH & Co. KG. Calibration certificate without signature has no validity																																																																																																																																																																																																																																																																																																																																																	