

Werkstückkanten, wenn nicht anders angegeben/edge of workpiece unless otherwise indicated

(343)

Technical drawing of a mechanical part with the following dimensions and features:

- Outer diameter:**  $\phi 4.3$  with a tolerance of  $+0.2$  to  $0$ .
- Inner hole diameter:**  $\phi 9.93$  with a tolerance of  $+0.02$  to  $-0.01$ .
- Bottom hole diameter:**  $\phi 5.1$  with a tolerance of  $+0.15$  to  $0$ .
- Bottom hole depth:**  $12.5$  with a tolerance of  $+0.5$  to  $0$ .
- Thread length:**  $=13\text{mm}$
- Material:**  $M 10 \times 1 - 6h$
- Surface treatment:**  $\text{Rmax. } 1.5 / \text{RMR } 0.2 \geq 60\%$  and  $\text{Salzbadhüttocarburieren / salt bath nitrocarburization } 6 \pm 3 \mu\text{m}$
- Dimensions X:**  $X \pm 0.3$  ( $\geq 200\text{ mm}$ ) and  $0 \pm 0.2$  ( $< 200\text{ mm}$ )
- Dimensions Z:**  $15 \text{ max.}$
- Markings:**  $u$ ,  $C$ ,  $D$ ,  $1/e[C-D]$
- Text:** Kratzer u. Schlagsstellen am Außen- $\varnothing$  in diesem Bereich max. Rz6.3 zulässig  
scratches and impacts on the outer diameter in this area max. Rz6.3 allowed

Länge "X-Maß" length "X-Maß"	Rundlauf "e" concentric run-out "e"
0 to $\leq 250$	0.1
>250 to $\leq 350$	0.2
>350 to $\leq 450$	0.3
>450 to $\leq 550$	0.4
>550 to $\leq 650$	0.5

Kratzer u. Schlagstellen am Außen-Ø in diesem Bereich max Rz6,3 zulässig  
carrochoc and dents on the outer diameter in this area max Rz6,3 allowed

The technical drawing illustrates a gear assembly with the following dimensions and features:

- Outer Diameter:**  $\varnothing 5.5$  mm, with a tolerance of  $+0.1$  mm.
- Shaft Diameter:**  $0.7$  mm, with a tolerance of  $+0.3$  mm.
- Shaft Length:**  $0.6$  mm, with a tolerance of  $+0.1$  mm.
- Shaft Angle:**  $45^\circ$ .
- Shaft Material:** V.
- Shaft Surface Finish:**  $R0.3$  mm.
- Shaft Taper:**  $\varnothing 0.3 \times 45^\circ$ .
- Shaft Hole:** A semi-circular slot or hole is shown on the left side of the shaft.
- Shaft Hatching:** The hatched area is located on the right side of the shaft, between the gear and the bearing housing.

X (10 : 1)

This technical drawing shows a cross-section of a mechanical part. The overall width is  $\phi 9.5 \pm 0.05$ . The top edge has a radius  $R_{max} <= 8$ . The top surface is labeled "Kanten verrundet edges rounded". A dimension of  $0.2 \begin{smallmatrix} +0.1 \\ 0 \end{smallmatrix} \times 45^\circ$  is shown, with an optional value of  $R 0.4 \pm 0.1$ . A note indicates "2 min." between two vertical dimensions. The left side has a height of  $7.8 \pm 0.1$  and a shoulder height of  $5.6 \begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ . A slot at the bottom has a width of  $3 \begin{smallmatrix} 0 \\ -0.3 \end{smallmatrix}$  and a depth of  $1.9 \pm 0.05$ , with a note "2 min.". The bottom part has a height of  $3.8 \begin{smallmatrix} +0.1 \\ 0 \end{smallmatrix}$  and a shoulder height of  $9.55 \pm 0.1$ . The right side features a shoulder with a diameter of  $\phi 7.7 \begin{smallmatrix} +0.1 \\ 0 \end{smallmatrix}$  and a radius  $R 0.4 \pm 0.05$ . A note specifies a surface finish of  $R_{max} 1.5 / RMR 0.2 \geq 60\% (09360027)$ . Material notes include "Salzbadnitrocarburieren / salt bath nitrocarburization  $6 \pm 3 \mu m$ ". A legend on the left lists "tric run-out" values from 0.1 to 0.5.

(Salzbadnitrocarburieren = Tenifer QPQ-Verfahren  
 (salt bath nitrocarburization = Tenifer QPQ)

			Ersetzt durch/replaced by			Material 1.0501 US: AISI 1035 CN: STKM11A	
			Ersatz für/replacement for				
Index	Änderungs Nr./ECN	Date	Date	Name	Bezeichnung/name <b>Kolbenstange, getenfert piston rod, nitrocarburized</b>	Ausgabe, Datum, Versteller/ edition, date, copies for	
			Drawn	11.09.2018			ZRL
Änderungen nur in/ revisions with CAD - 3D only			Check				
Wenn nicht anders angegeben/unless otherwise specified Maßangabe in Millimeter/ dimensions shown in millimeters Allgemeintoleranz/general tolerances DIN ISO 2768-m.			Maßstab/scale ISO 128-30 2:1	Zeichnungsnr./drawing number K83353	Blatt/sheet 1/1		
			Format/paper-size A3				