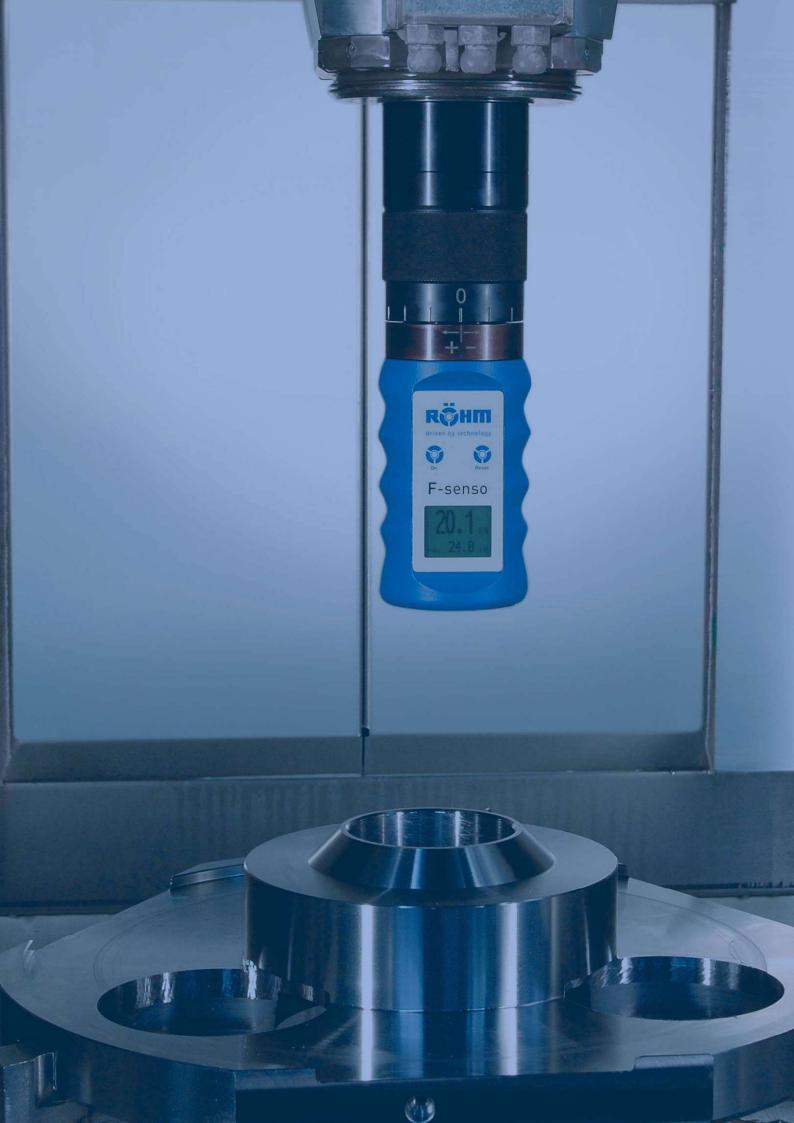


# TOOL CLAMPING SYSTEMS



EDITION 8





# EXCHANGEABLE MEASURING ADAPTER FOR HSK, SK AND SPK





# F-SENSO SPINDLE PULL-IN FORCE MEASURING DEVICE

Ensuring consistently high machining quality has top priority. Due to the regular check of the tool clamping system with the pull-in force measuring device, F-senso spindle, changes in the clamping force are detected even before it has an effect on the machining quality.

## ADVANTAGES AT A GLANCE

- Maximum flexibility due to exchangeable measuring adapter for all HSK and SK sizes
- Best user-friendliness due to intuitive operation and delivery in a practical case
- Simulation of the tool and spindle tolerances possible by a scaled ring



8031



# F-senso spindle 0-15 kN



### **APPLICATION**

Measuring device for SK and HSK spindles of size SK 30; HSK (A) 25, 32, 40.

Measuring range 0-15 kN.

## **CUSTOMER BENEFITS**

- Maximum flexibility due to exchangeable adapters for all HSK and steep-
- High user-friendliness due to intuitive operation and delivery in a practical
- case
  Simulation of the tool and spindle tolerances possible by a scaled ring

- Delivery includes:
   F-senso spindle force measurement device
   Case with space for adapter

  - Mounting bar Battery

Pull-in force measurement device F-senso spindle 0-15 kN



Item no.	Measuring range / Clamping force kN	Accuracy	Dimensions (base unit)
1266341	0-15 kN	0,25% (f.s.)	ca. Ø66 mm; L = 172 mm

C 15 Adaptor for HSK taper



Item no.	Size HSK-A/C/E/T	Size HSK-B/D/F
1255735	25	32
1255737	40	50
1255736	32	40

#### C 15 Adaptor for steep taper shank



Item no.	Matching adapter
1255743	SK 30

## A 34 Draw-in bolts



Item no.	Size	Design
698582	SK 30	Draw-in bolts DIN 69872 A
698583	SK 30	Draw-in bolts DIN 69872 B
1297449 ▲	SK 30	Draw-in bolts ISO 7388/II-B
1297435▲	SK 30	Draw-in bolts MAS BT 1 (45°)
1297436 ▲	SK 30	Draw-in bolts MAS BT 2 (30°)
1297450▲	SK 30	Draw-in bolts ANSI B5.50

Calibration services F-senso spindle (including test certificate)

Item no.	Design
1295776	Calibration including test certificate (recommendation: annually)



# F-senso spindle 10-100 kN



### **APPLICATION**

Measuring device for SK and HSK clamping systems of sizes SK 40, 50, 60; HSK (A) 50, 63, 80, 100, 125 and clamping head SPK.

Measuring range 10-100 kN.

## **CUSTOMER BENEFITS**

- Maximum flexibility due to exchangeable adapters for all HSK and steep-
- High user-friendliness due to intuitive operation and delivery in a practical
- case

  Simulation of the tool and spindle tolerances possible by a scaled ring

- Delivery includes:
   F-senso spindle force measurement device
   Case with space for adapter

  - Mounting bar
  - Battery

C 15 Pull-in force measurement device F-senso spindle 10-100 kN



Item no.	Measuring range / Clamping force kN	Accuracy	Dimensions (base unit)
1255729	10-100 kN	0,25% (f.s.)	ca. Ø66 mm; L = 189 mm

C 15 Adaptor for HSK taper



Item no.	Size HSK-A/C/E/T	Size HSK-B/D/F
1255738	50	63
1255739	63	80
1255740	80	100
1255741	100	125
1255742 ▲	125	160

Adaptor for steep taper shank



Item no.	Matching adapter
1255744	SK 40
1255745	SK 50
1255746 ▲	SK 60

A 34 Draw-in bolts



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	Design	SK 40	SK 50	SK 60
	Draw-in bolts DIN 69872 A	347325	367316	1297443
	Draw-in bolts DIN 69872 B	698584	698586	1234433 ▲
	Draw-in bolts ISO 7388/II-B	367569	698588	1297444 ▲
	Draw-in bolts MAS BT 1 (45°)	1297437 ▲	698591	1297445▲
	Draw-in bolts MAS BT 2 (30°)	1297438▲	698594	1297446▲
	Draw-in bolts ANSI B5.50	620770	620771	1297447▲

Calibration services F-senso spindle (including test certificate)

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	Item no.	Design
	1295776	Calibration including test certificate (recommendation: annually)

Measuring adapters for clamping heads SPK on request