

**Synchro Plus™**  
**ADVANCES 2015**

**WIDIA** 

# Synchro Plus™ Tap Holders

## Primary Application

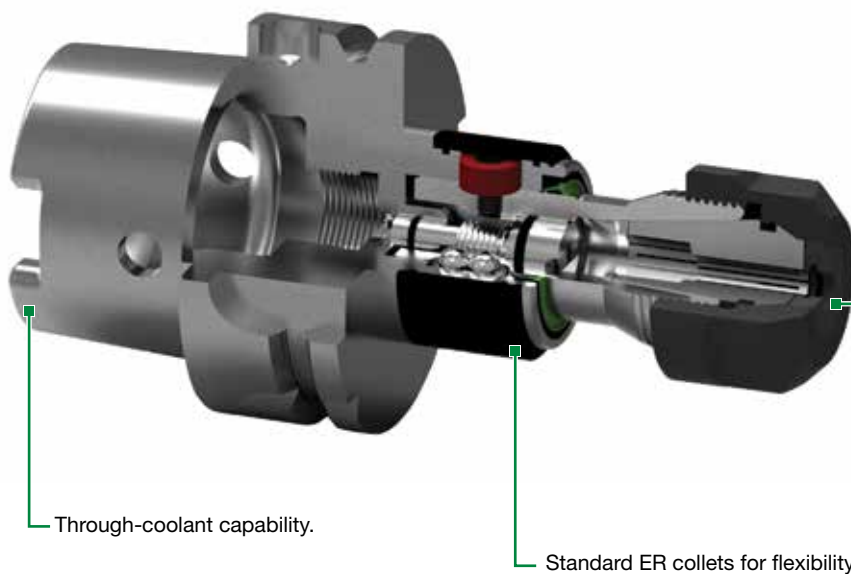
- First choice for rotating tapping applications.
- Synchronize your tapping application to achieve unparalleled thread quality with the new Synchro Plus.
- Utilizes standard ER collets for reliable and repeatable production processes.
- Modular system provides maximum flexibility.

### Features

- Uses standard ER tapping collets (DIN ISO 15488).
- Length compensation.
- Elastomer springs.
- Internal coolant and MQL capability.
- Modular system.

### Benefits

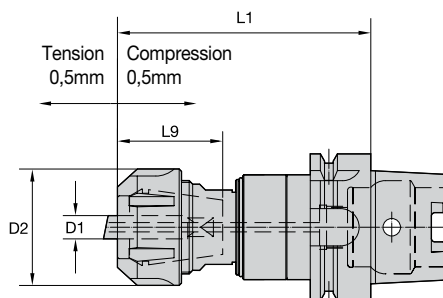
- Interchangeable and easily replaced.
- Better tool life and thread quality.
- No swing up of cutting edge.
- Better tool life.
- Works with existing end mill and Whistle Notch™ adapters.



Through-coolant capability.

Standard ER collets for flexibility.

Dampening elements reduce torque forces for longer tool life.



■ HSK63A Synchro Plus • Metric

order number	catalog number	collet size	D1	D2	L1	L9	tap size	max torque Nm (ft. lbs.)
5525685	HSK63ASYTER20095M	ER20	4.5–10	34.000	99.100	45.000	M4 – M12	40 (29)
5525686	HSK63ASYTER32108M	ER32	4.5–16	45.000	112.400	52.000	M4 – M20	170 (125)

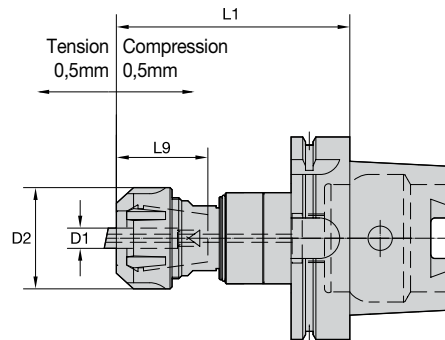
NOTE: For ER collets, see the WIDIA™ Tooling Systems Master Catalog pages I58–I59.  
Coolant tube must be ordered separately; see the WIDIA Tooling Systems Master Catalog pages page J32.  
Need two adjustment wrenches to properly tighten; option to use tightening device with new torque wrench possible.  
Adjustment screws ordered separately.  
Adjustment range for length adjusting screw is +2mm for both ER20 and ER32.  
Place one wrench on flat below the nut and the other wrench on the nut and use opposing force to tighten or loosen.  
Sealing disks sold separately; see the WIDIA Tooling Systems Master Catalog pages J13–J19.

■ Optional Accessories

holder description	locknut	locknut wrench set	tightening device	torque wrench	torque wrench adapter	HSK coolant tube	HSK wrench for coolant assembly
HSK63ER20	1859410	CWER20SYT -SET	TFSYT	TWTF2	TWAHEX	1132145	1134161
HSK63ER32	1128857	CWER32SYT -SET	TFSYT	TWTF2	TWAROUND	1132145	1134161

■ Length Adjustment

	adjustment range	adjustment screw catalog number	adjustment screw wrench
ER 20:	6–7mm	ASER20006M	TWASER20
	8–9mm	ASER20008M	TWASER20
	10mm	ASER20010M	TWASER20
ER 32:	9mm	ASER32009M	TWASER32
	10–12mm	ASER32010M	TWASER32
	14–16mm	ASER32014M	TWASER32



## ■ HSK100A Synchro Plus • Metric

order number	catalog number	collet size	D1	D2	L1	L9	tap size	max torque Nm (ft. lbs.)
5525687	HSK100ASYTER20102M	ER20	4.5–10	34.000	105.600	45.000	M4 – M12	40 (29)
5525688	HSK100ASYTER32115M	ER32	4.5–16	45.000	118.900	52.000	M4 – M20	170 (125)

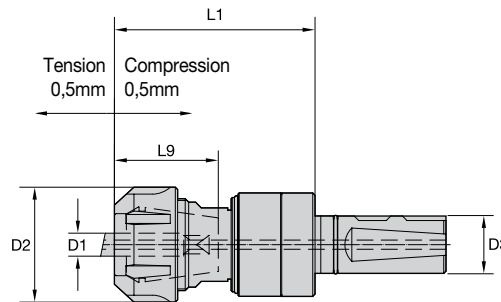
NOTE: For ER collets, see the WIDIA™ Tooling Systems Master Catalog pages I58–I59.  
 Coolant tube must be ordered separately; see the WIDIA Tooling Systems Master Catalog pages page J32.  
 Need two adjustment wrenches to properly tighten; option to use tightening device with new torque wrench possible.  
 Adjustment screws ordered separately.  
 Adjustment range for length adjusting screw is +2mm for both ER20 and ER32.  
 Place one wrench on flat below the nut and the other wrench on the nut and use opposing force to tighten or loosen.  
 Sealing disks sold separately; see the WIDIA Tooling Systems Master Catalog pages J13–J19.

## ■ Optional Accessories

holder description	locknut	locknut wrench set	tightening device	torque wrench	torque wrench adapter	HSK coolant tube	HSK wrench for coolant assembly
HSK100ER20	1859410	CWER20SYT -SET	TFSYT	TWTF2	TWAHEX	1132147	1132993
HSK100ER32	1128857	CWER32SYT -SET	TFSYT	TWTF2	TWAROUND	1132147	1132993

## ■ Length Adjustment

	adjustment range	adjustment screw catalog number	adjustment screw wrench
ER 20:	6–7mm	ASER20006M	TWASER20
	8–9mm	ASER20008M	TWASER20
	10mm	ASER20010M	TWASER20
ER 32:	9mm	ASER32009M	TWASER32
	10–12mm	ASER32010M	TWASER32
	14–16mm	ASER32014M	TWASER32



■ **Straight Shank Synchro Plus • Metric**

order number	catalog number	collet size	D1	D2	D3	L1	L9	tap size	max torque Nm (ft. lbs.)
5525781	SS25SYTER20073M	ER20	4.5-10	34.000	25.00	76.600	45.000	M4 – M12	40 (29)
5525782	SS25SYTER32087M	ER32	4.5-16	45.000	25.00	90.900	52.000	M4 – M20	170 (125)

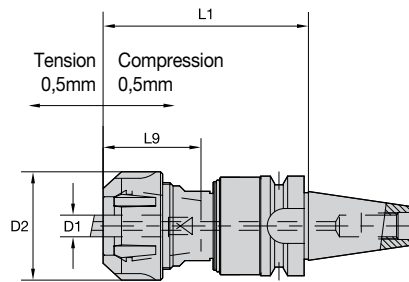
*NOTE: For ER collets, see the WIDIA™ Tooling Systems Master Catalog pages I58–I59.  
Coolant tube must be ordered separately; see the WIDIA Tooling Systems Master Catalog page J32.  
Need two adjustment wrenches to properly tighten; option to use tightening device with new torque wrench possible.  
Adjustment screws ordered separately.  
Adjustment range for length adjusting screw is +2mm for both ER20 and ER32.  
Place one wrench on flat below the nut and the other wrench on the nut and use opposing force to tighten or loosen.  
For Whistle Notch™ and end mill adapters in every spindle connection, see the WIDIA Tooling Systems Master Catalog.  
Sealing disks sold separately; see the WIDIA Tooling Systems Master Catalog pages J13–J19.*

■ **Optional Accessories**

holder description	locknut	locknut wrench set	tightening device	torque wrench	torque wrench adapter
SS25ER20	1859410	CWER20SYT -SET	TFSYT	TWTF2	TWAHEX
SS25ER32	1128857	CWER32SYT -SET	TFSYT	TWTF2	TWAROUND

■ **Length Adjustment**

	adjustment range	adjustment screw catalog number	adjustment screw wrench
ER 20:	6–7mm	ASER20006M	TWASER20
	8–9mm	ASER20008M	TWASER20
	10mm	ASER20010M	TWASER20
ER 32:	9mm	ASER32009M	TWASER32
	10–12mm	ASER32010M	TWASER32
	14–16mm	ASER32014M	TWASER32



### ■ BT Synchro Plus • Metric

order number	catalog number	collet size	D1	D2	L1	L9	tap size	max torque Nm (ft. lbs.)
5525689	BT30BSYTER20085M	ER20	4.5–10	34.000	90.100	45.000	M4 – M12	40 (29)
5525780	BT30BSYTER32073M	ER32	4.5–10	45.000	98.400	52.000	M4 – M20	170 (125)

*NOTE: For ER collets, see the WIDIA™ Tooling Systems Master Catalog pages I58–I59.  
 Coolant tube must be ordered separately; see the WIDIA Tooling Systems Master Catalog page J32.  
 Need two adjustment wrenches to properly tighten; option to use tightening device with new torque wrench possible.  
 Adjustment screws ordered separately.  
 Adjustment range for length adjusting screw is +2mm for both ER20 and ER32.  
 Place one wrench on flat below the nut and the other wrench on the nut and use opposing force to tighten or loosen.  
 For Whistle Notch™ and end mill adapters in every spindle connection, see the WIDIA Tooling Systems Master Catalog.  
 Sealing disks sold separately; see the WIDIA Tooling Systems Master Catalog pages J13–J19.  
 For complete list of retention knobs, see the WIDIA Tooling Systems Master Catalog pages J33–J38.*

### ■ Optional Accessories

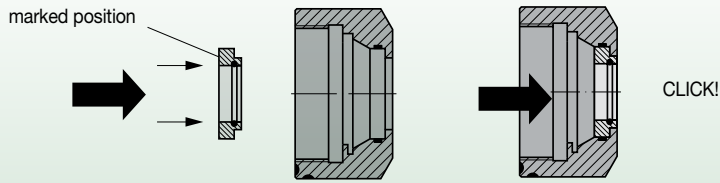
holder description	locknut	locknut wrench set	tightening device	torque wrench	torque wrench adapter
BT30ER20	1859410	CWER20SYT -SET	TFSYT	TWTF2	TWAHEX
BT30ER32	1128857	CWER32SYT -SET	TFSYT	TWTF2	TWAROUND

### ■ Length Adjustment

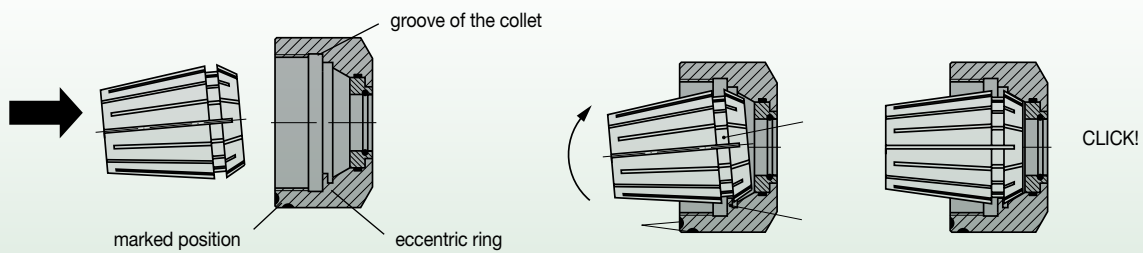
	adjustment range	adjustment screw catalog number	adjustment screw wrench
ER 20:	6–7mm	ASER20006M	TWASER20
	8–9mm	ASER20008M	TWASER20
	10mm	ASER20010M	TWASER20
ER 32:	9mm	ASER32009M	TWASER32
	10–12mm	ASER32010M	TWASER32
	14–16mm	ASER32014M	TWASER32

## Assembly Instructions for Synchro Plus

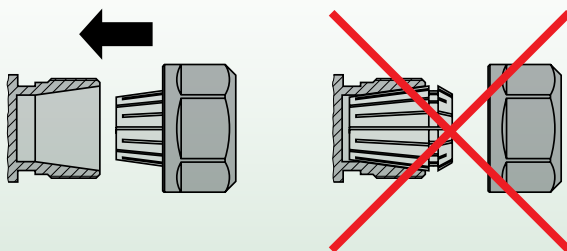
### 1. Assembly of the Sealing Disk



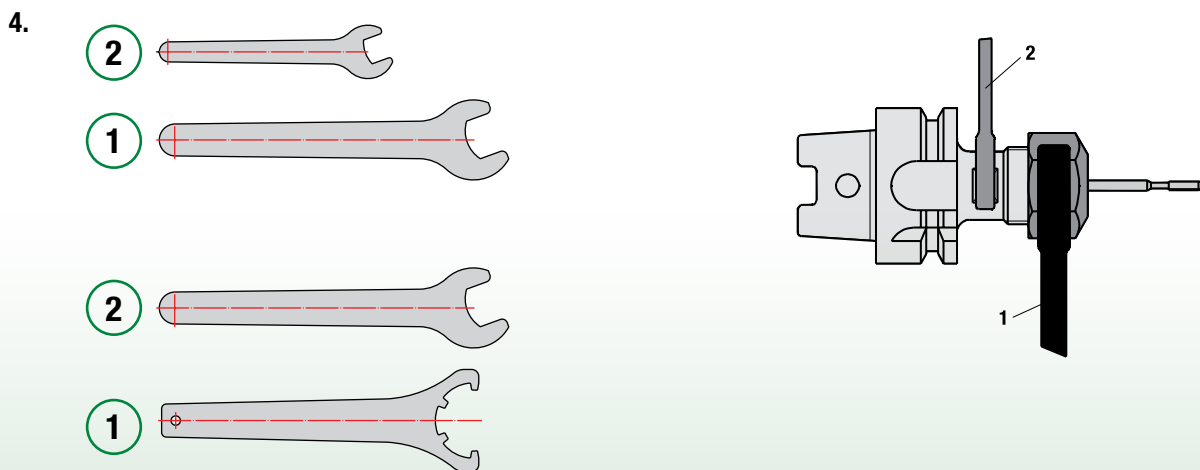
### 2. Assembly of the Collet



### 3. Screw Clamping Nut with Engaged Collet onto the Thread Holder



## Tool Set for Synchro Plus 1 + 3





# Synchro Plus™

## ADVANCES 2015

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