

_ACCURE-TEC

Accure-tec –
boring bars/adaptors

Edition 2021

Mill and turn accurately without vibration.





Accuretec – Stationary boring bars/adaptors

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Accuretec – Rotating boring bars/adaptors

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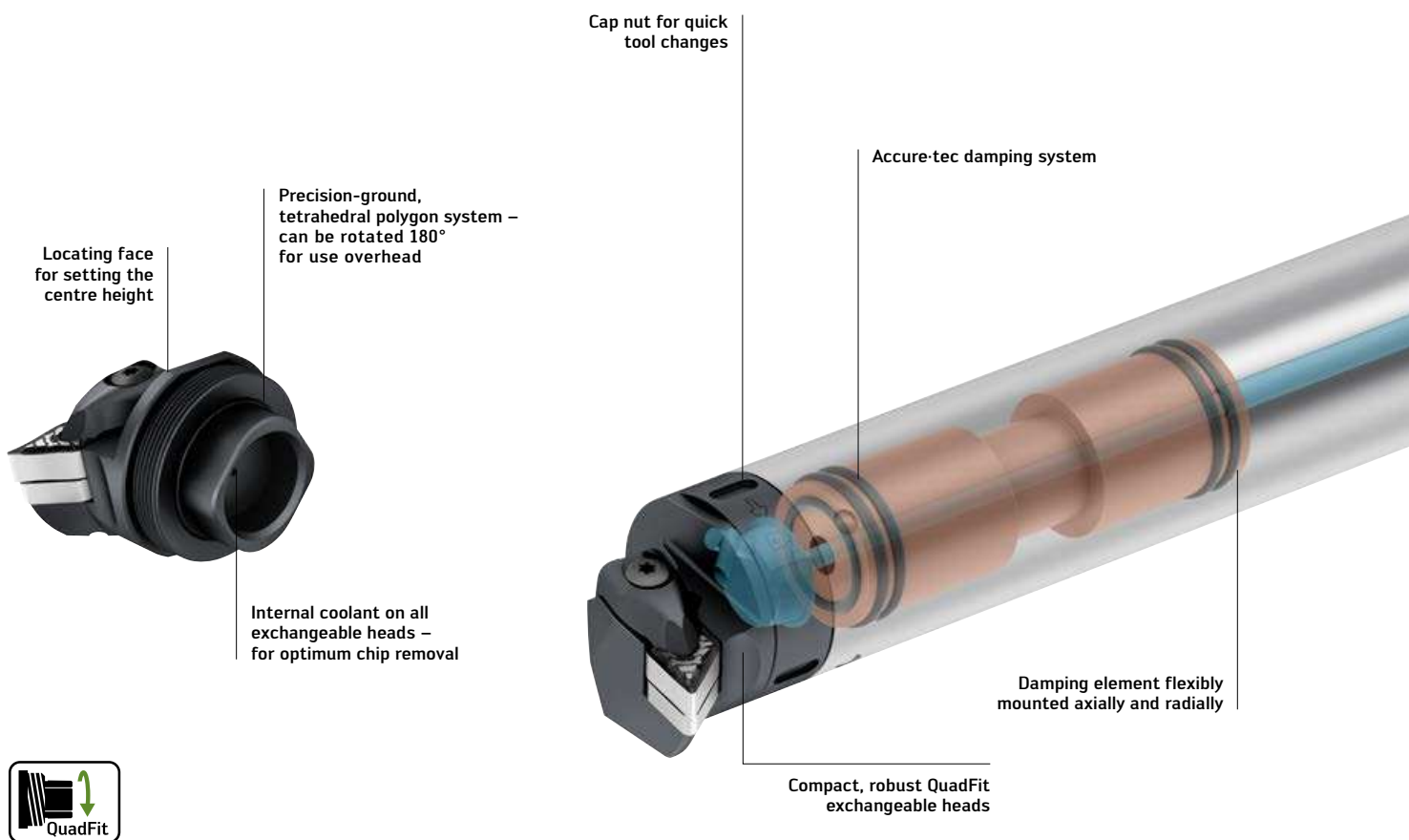
Accure-tec – the best results for long components.

THE TOOL

- Accure-tec A3000 boring bars with patented vibration-damping technology for maximum precision
- Vibration-damped, preset boring bar adaptor
- Lengths: $6 \times D$, $8 \times D$, $10 \times D$
- Boring bar diameters:
 - 25–50 mm
 - 1–2"
 - Additional sizes and lengths available on request
- Interface to the machine:
 - Parallel shank 25–50 mm
 - Walter Capto™ C4–C8
 - HSK-T 63–100

THE INTERFACE

- QuadFit quick-change heads; 0.002 mm indexing accuracy
- Only one cap nut for clamping the exchangeable head
- No loose “assembly parts” (e.g. screws)
- Available for:
 - ISO indexable inserts
 - Walter Cut grooving
 - Walter NTS thread turning



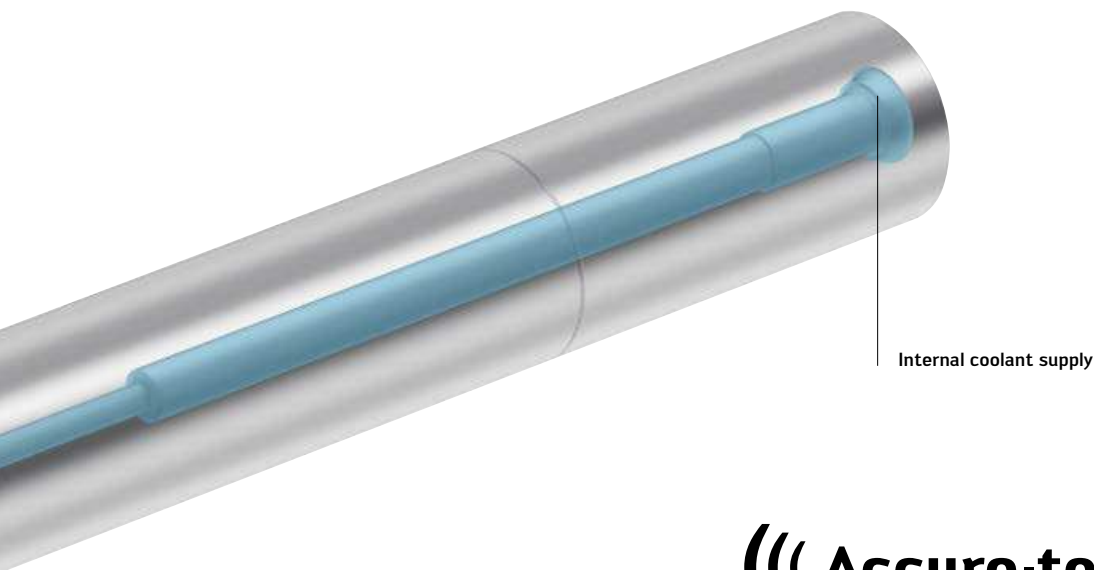
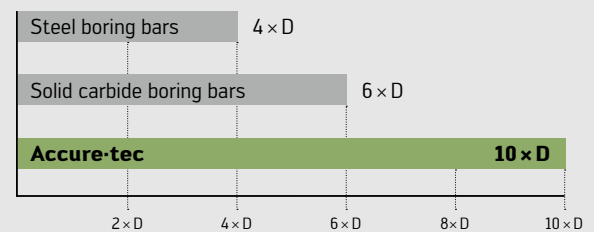
QuadFit quick-change head

Fig.: Q40-DDUNR-27032-15

THE APPLICATION

- Can be used from $6 \times D$ to $10 \times D$
- Counterboring and internal profiling deep bores with high productivity for the best surface quality
- Areas of use: Aerospace industry (e.g. engines), oil and gas industries (e.g. pumps) and general mechanical engineering

Comparison – projection length/dia.



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Vibration-damped boring bar from $6 \times D$ to $10 \times D$

Fig.: A3000-40-Q40-208

BENEFITS FOR YOU

Accure-tec boring bars

- Broad scope of applications for machining expensive components safely and quickly
- Bore machining without vibration – for optimal surface quality
- Maximum damping due to damping element flexibly mounted axially and radially
- Vibration damping “preset” at the factory – ready for immediate use (no time lost tuning)

QuadFit exchangeable heads

- Quick and precise tool change (± 0.002 mm)
- Less non-productive time due to fast tool changes
- Broad range of products with different machine interfaces allows for versatility

Accure-tec – low-vibration turning of large bores.

NEW ADDITION TO THE PRODUCT RANGE

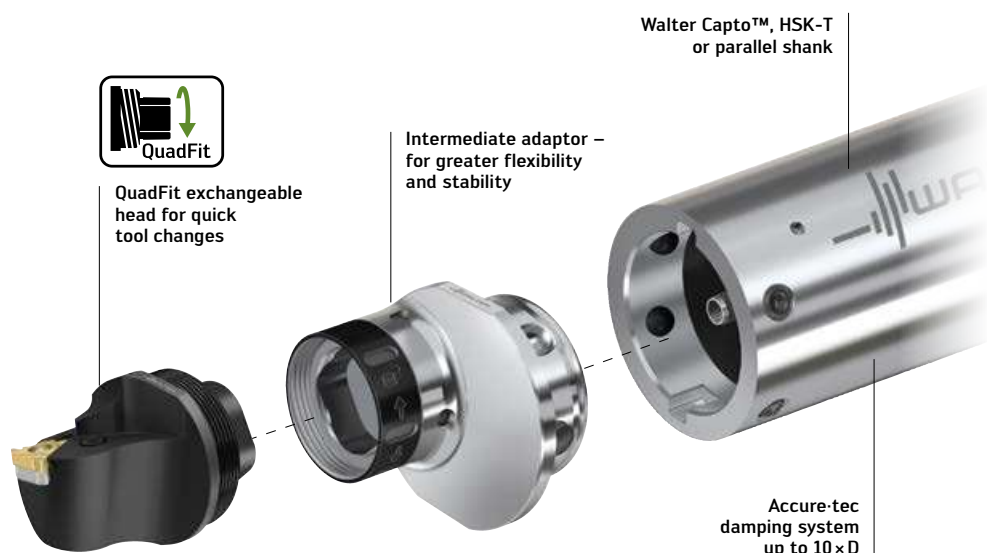
- A2201 QuadFit Large intermediate adaptor for larger f dimensions
- Boring bar diameters: 60–100 mm; 2.5–4"; lengths: $6 \times D$ and $10 \times D$ (other dimensions available on request)

THE TOOL

- Preset, modular, vibration-damped boring bar adaptor
- Interface to the machine:
 - Parallel shank 60–100 mm; 2.5–4"
 - Walter Capto™ C8
 - HSK-T 100

THE APPLICATION

- Counterboring with 6 to $10 \times D$
- Boring length of up to 1000 mm is possible with standard tool
- Can be used for:
 - Counterboring with positive and negative indexable inserts
 - Thread turning with precision cooling T1820-Q...-P
 - Internal grooving G4221-Q...-P



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Modular, vibration-damped boring bar up to dia. 100 mm

Fig.: T1820-Q50R-16I-P,
A2201-QL80-23-27-Q50,
A3001-C8-QL60-421

BENEFITS FOR YOU

- High productivity and surface quality due to low-vibration bore machining
- Time saving due to quick, precise tool changes (± 0.002 mm) with QuadFit exchangeable heads
- Reliable due to excellent chip removal from the bore due to larger f dimension
- Vibration damping "preset" at the factory – ready for immediate use, no time lost tuning

Quick and precise tool change.

THE INTERFACE

- 0.002 mm indexing accuracy
- Only one cap nut for clamping the exchangeable head
- No loose “assembly parts” (e.g. screws)
- Simple overhead use, as exchangeable head can be rotated 180° in the boring bar/adaptor



ISO turning – Negative basic shape

- Rigid clamping
- CNMG12/16, DNMG11/15, WNMG06/08



ISO turning – Positive basic shape

- Screw clamping
- CCMT09/12, DCMT11, TCMT11/16, VBMT11/16



Grooving G4221-Q...-P

- Precision cooling on the rake face and flank face
- DX18 indexable inserts
- Insert width 3–4 mm



Thread turning T1820-Q...-P

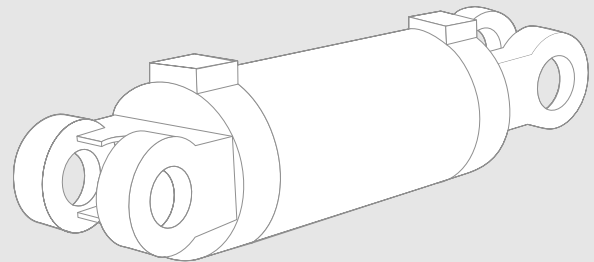
- Precision cooling
- NTS-IR16, NTS-IR22

QuadFit special tools

- On request
- Pre-machined blanks for a short delivery time.

APPLICATION EXAMPLE

Hydraulic cylinder – 950 mm



Material: St52.3/DIN 1.0570/S355J2
470–630 N/mm²

Accuretec boring bar/adaptor: A3001-100-QL100-939
A2201-QL100-28-29-Q50

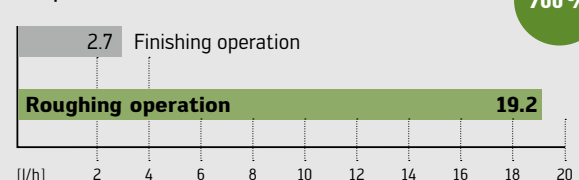
Boring bar/adaptor: Ø 100 mm; l₄: 1000 mm (10 x D)

Workpiece: Ø 358 mm; l: 950 mm

Cutting data:

	Roughing 10 x D Q50-DCLNR-32032-12 CNMG120408-RP5 WPP20S	Finishing 10 x D Q50-DDUNR-32032-15 DNMG150608-MS3 WMP20S
v_c [m/min]	200	300
f [mm]	0.4	0.15
a_p [mm]	4.0	1.0
Cooling	Yes	Yes

Comparison: Metal removal rate [l/h]



BENEFITS FOR YOU

- Quick and precise tool change (± 0.002 mm)
- Less non-productive time due to fast tool changes
- Broad range of products allows for versatility

Walter Turn turning tools product range overview – Internal machining

Accure-tec vibration-damped boring bar/adaptor

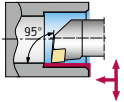
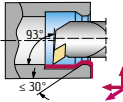
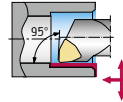
Designation	A3000	A3001	A3000-C	A3001-C	A3000-HSK-T	A3001-HSK-T
Tool type	Accure-tec boring bars/adaptors					
Machine-side	Parallel shank	Parallel shank	Walter Capto™ in acc. with ISO 26623	Walter Capto™ in acc. with ISO 26623	HSK-T DIN 69893-7	HSK-T DIN 69893-7
Tool-side	Q25 / Q32 / Q40 / Q50	QL60 / QL64 / QL74 / QL80 / QL100	Q25 / Q32 / Q40 / Q50	QL60 / QL80	Q25 / Q32 / Q40 / Q50	QL60 / QL80
Boring bar diameter d ₂ [mm]	25–50	60–100	25–50	60–80	25–50	60–80
Boring bar length l ₄ [mm]	130–470	301–953	130–468	301–581	130–468	301–581
Page	9	11	13	14	15	16
						

Intermediate adaptor – QuadFit Large

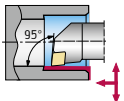
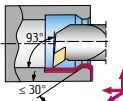
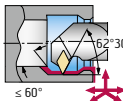
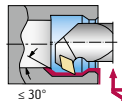
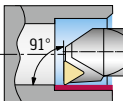
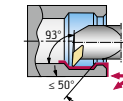
Designation	A2201
Machine-side	QuadFit Large
Tool-side	QuadFit
Page	17
	

Walter Turn turning tools product range overview – Internal machining

QuadFit exchangeable head – Negative basic shape

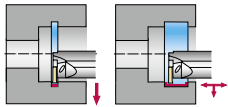
Machining			
Type			
Designation	Q...-DCLN	Q...-DDUN	Q...-DWLN
Lead angle κ	95°	93°	95°
Clamping system	Clamp	Clamp	Clamp
Coolant supply	Internal	Internal	Internal
QuadFit size	Q32-Q50	Q32-Q50	Q32-Q50
Insert size l [mm]	12-16	11-15	6-8
Page	19	20	21
			

QuadFit exchangeable head – Positive basic shape

Machining						
Type						
Designation	Q...-SCLC	Q...-SDUC	Q...-SDXC	Q...-SDUC...-X	Q...-STFC	Q...-SVUB
Lead angle κ	95°	93°	62,5°	32°	91°	93°
Clamping system	Screw	Screw	Screw	Screw	Screw	Screw
Coolant supply	Internal	Internal	Internal	Internal	Internal	Internal
QuadFit size	Q25-Q50	Q25-Q50	Q25-Q50	Q25-Q50	Q25-Q50	Q25-Q50
Insert size l [mm]	9-12	11	11	11	11-16	11-16
Page	22	23	25	24	26	27
						

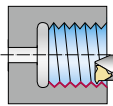
Walter Cut grooving tools product range overview

Tools for internal grooving

	
Type	
Designation	G4221-Q...-P
Insert width s [mm]	3–4
Cutting depth T_{max} [mm]	21
Coolant supply	Precision cooling
QuadFit size	Q25–Q50
Page	28
	

Walter NTS threading tools product range overview

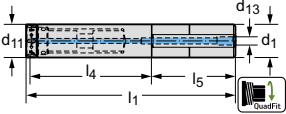
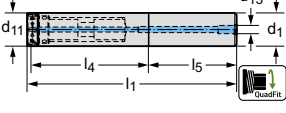
Thread turning tools

	
Type	 NTS..
Designation	T1820-Q...-P
Clamping system	Toggle
Coolant supply	Precision cooling
QuadFit size	Q25–Q50
Insert size	16–22
Page	29
	

Plain cylindrical adaptor – vibration-damped

A3000 mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	l ₄ mm	l ₅ mm	l ₁ mm	d ₁₃	kg
 Parallel shank with clamping surface	A3000-25-Q25-130	25	Q25	130	100	235	G 1/4	0,9
	A3000-25-Q25-180	25	Q25	180	100	285	G 1/4	1,1
	A3000-32-Q32-160	32	Q32	160	128	293	G 1/4	1,8
	A3000-32-Q32-224	32	Q32	224	128	357	G 1/4	2,3
	A3000-40-Q40-208	40	Q40	208	160	374	G 1/4	3,8
	A3000-40-Q40-288	40	Q40	288	160	454	G 1/4	4,6
	A3000-50-Q50-268	50	Q50	268	200	475	G 1/4	7,5
	A3000-50-Q50-368	50	Q50	368	200	575	G 1/4	9,1
 Parallel shank without clamping surface	A3000-25-Q25-230-CS	25	Q25	230	75	310	M8X1	1,7
	A3000-32-Q32-288-CS	32	Q32	288	98	389	M8X1	2,7
	A3000-40-Q40-368	40	Q40	368	160	534	G 1/4	5,5
	A3000-50-Q50-468	50	Q50	468	200	675	G 1/4	11

QuadFit exchangeable heads – see the "Turning" section

A3000...-CS = Carbide-reinforced version

Bodies and assembly parts are included in the scope of delivery.

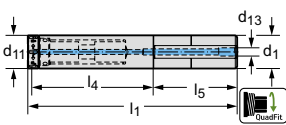
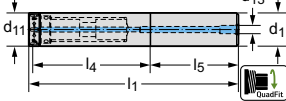
Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm
	Coolant adaptor for CS variant		CN3001-M8-G1/4	CN3001-M8-G1/4		

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
	Tightening torque		25 Nm	35 Nm	55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

Plain cylindrical adaptor – vibration-damped

A3000 inch
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ inch	d ₁₁	l ₄ inch	l ₅ inch	l ₁ inch	d ₁₃	lbs
 Parallel shank with clamping surface	A3000.16-Q25-133	1,000	Q25	5,250	4,000	9,430	G 1/4	4,37
	A3000.16-Q25-184	1,000	Q25	7,250	4,000	11,430	G 1/4	5,36
	A3000.20-Q32-165	1,250	Q32	6,500	5,000	11,713	G 1/4	3,97
	A3000.20-Q32-229	1,250	Q32	9,000	5,000	14,213	G 1/4	5,07
	A3000.24-Q40-203	1,500	Q40	8,000	6,000	14,252	G 1/4	7,72
	A3000.24-Q40-279	1,500	Q40	11,000	6,000	17,252	G 1/4	9,48
	A3000.32-Q50-267	2,000	Q50	10,500	8,000	18,791	G 1/4	16,76
	A3000.32-Q50-368	2,000	Q50	14,496	8,000	22,791	G 1/4	20,28
 Parallel shank without clamping surface	A3000.16-Q25-235-CS	1,000	Q25	9,250	3,000	12,430	M8X1	8,75
	A3000.20-Q32-292-CS	1,250	Q32	11,500	3,750	15,463	M8X1	13,12
	A3000.24-Q40-356	1,500	Q40	14,000	6,000	20,252	G 1/4	11,46
	A3000.32-Q50-470	2,000	Q50	18,500	8,000	26,791	G 1/4	24,69

QuadFit exchangeable heads – see the "Turning" section

A3000...-CS = Carbide-reinforced version

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

	d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque	SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm
	Coolant adaptor for CS variant	CN3001-M8-G1/4	CN3001-M8-G1/4		

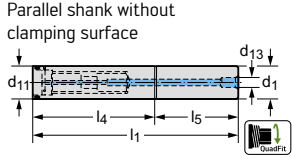
Accessories

	d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque	SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q32	SD6000-Q40	SD6000-Q50

Plain cylindrical adaptor – vibration-damped

A3001
Accure-tec

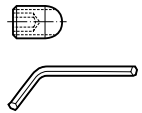

- For A2201 intermediate adaptor with QuadFit interface
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	l ₄ mm	l ₅ mm	l ₁ mm	d ₁₃	kg
	A3001-60-QL60-301	60	QL60	301	240	541	G 3/4	12,5
	A3001-60-QL60-541	60	QL60	541	240	781	G 3/4	18,1
	A3001-80-QL80-421	80	QL80	421	320	741	G 3/4	30,2
	A3001-80-QL80-741	80	QL80	741	320	1061	G 3/4	43,4
	A3001-100-QL100-939	100	QL100	939	500	1439	G 3/4	84,7

QuadFit exchangeable heads – see the "Turning" section

A2201 intermediate adaptor – see the "Boring bars/adaptors" section

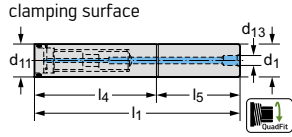
Bodies and assembly parts are included in the scope of delivery.

Assembly parts		d ₁₁	QL60	QL80	QL100
	Threaded plug Tightening torque		FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
	Allen key		ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

Plain cylindrical adaptor – vibration-damped

A3001 inch
Accure-tec


- For A2201 intermediate adaptor with QuadFit interface
- With preset vibration damping

Tool	Designation	d ₁ inch	d ₁₁	l ₄ inch	l ₅ inch	l ₁ inch	d ₁₃	lbs
	A3001.40-QL64-318	2,500	QL64	12,500	10,000	22,500	G 3/4	32,41
	A3001.40-QL64-572	2,500	QL64	22,500	10,000	32,500	G 3/4	46,74
	A3001.48-QL76-394	3,000	QL74	15,500	12,000	27,500	G 3/4	57,32
	A3001.48-QL76-699	3,000	QL74	27,500	12,000	39,500	G 3/4	83,11
	A3001.64-QL100-953	4,000	QL100	37,500	20,000	57,500	G 3/4	195,55

QuadFit exchangeable heads – see the "Turning" section

A2201 intermediate adaptor – see the "Boring bars/adaptors" section

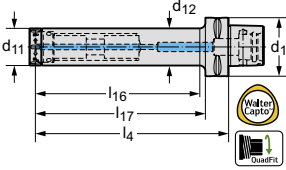
Bodies and assembly parts are included in the scope of delivery.

Assembly parts	d ₁₁	QL64	QL74	QL100
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm	FS2611 23 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)	ISO2936-6 (SW 6)

Walter Capto™ boring bar/adaptor – vibration-damped

A3000-C mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	A3000-C4-Q25-130	C4	Q25	25	130	107	110	10000	0,8
	A3000-C4-Q25-180	C4	Q25	25	180	157	160	8000	1
	A3000-C4-Q32-160	C4	Q32	32	160	137	140	10000	1,2
	A3000-C4-Q32-224	C4	Q32	32	224	201	204	8000	1,7
	A3000-C5-Q25-130	C5	Q25	25	130	107	110	10000	0,9
	A3000-C5-Q25-180	C5	Q25	25	180	157	160	8000	1,1
	A3000-C5-Q25-230	C5	Q25	25	230	207	210	6000	1,3
	A3000-C5-Q32-160	C5	Q32	32	160	136	140	10000	1,4
	A3000-C5-Q32-224	C5	Q32	32	224	200	204	8000	1,8
	A3000-C5-Q32-288	C5	Q32	32	288	264	268	6000	2,2
	A3000-C5-Q40-208	C5	Q40	40	208	184	188	8000	2,5
	A3000-C5-Q40-288	C5	Q40	40	288	264	268	6000	3,3
	A3000-C5-Q40-368	C5	Q40	40	368	344	348	5000	4,3
	A3000-C6-Q25-130	C6	Q25	25	130	102	105	10000	1,3
	A3000-C6-Q25-180	C6	Q25	25	180	152	155	8000	1,5
	A3000-C6-Q25-230	C6	Q25	25	230	202	205	6000	1,7
	A3000-C6-Q32-160	C6	Q32	32	160	129	135	10000	1,8
	A3000-C6-Q32-224	C6	Q32	32	224	193	199	8000	2,1
	A3000-C6-Q32-288	C6	Q32	32	288	257	263	6000	2,6
	A3000-C6-Q40-208	C6	Q40	40	208	177	183	8000	2,9
	A3000-C6-Q40-288	C6	Q40	40	288	257	263	6000	3,7
	A3000-C6-Q40-368	C6	Q40	40	368	337	343	5000	4,5
	A3000-C6-Q50-268	C6	Q50	50	268	238	243	6000	5
	A3000-C6-Q50-368	C6	Q50	50	368	338	343	4000	6,6
	A3000-C6-Q50-468	C6	Q50	50	468	438	443	2500	8,5
	A3000-C8-Q32-224	C8	Q32	32	224	181	191	8000	3,2
	A3000-C8-Q32-288	C8	Q32	32	288	245	255	6000	3,6
	A3000-C8-Q40-288	C8	Q40	40	288	245	255	6000	4,7
	A3000-C8-Q40-368	C8	Q40	40	368	325	335	5000	5,6
	A3000-C8-Q50-268	C8	Q50	50	268	225	235	6000	5,9
	A3000-C8-Q50-368	C8	Q50	50	368	325	335	4000	7,5
	A3000-C8-Q50-468	C8	Q50	50	468	425	435	2500	9,4

QuadFit exchangeable heads – see the "Turning" section
 Bodies and assembly parts are included in the scope of delivery.

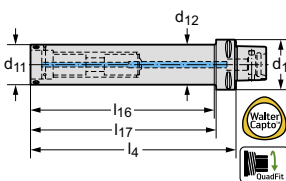
Assembly parts					
	d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench Tightening torque	SD9000-Q25 25 Nm	SD9000-Q32 25 Nm	SD9000-Q40 35 Nm	SD9000-Q50 55 Nm

Accessories				
	d ₁₁	Q32	Q40	Q50
	Torque wrench with hook Tightening torque	SD4000-Q32-25 25 Nm	SD4000-Q40-35 35 Nm	SD4000-Q50-55 55 Nm
	Hook for torque wrench	SD6000-Q32	SD6000-Q40	SD6000-Q50

Walter Capto™ boring bar/adaptor – vibration-damped

A3001-C mm
Accure-tec


- For A2201 intermediate adaptor with QuadFit interface
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	Walter Capto™ in acc. with ISO 26623 A3001-C6-QL60-301	C6	QL60	60	301	273	276	4000	7,8
	A3001-C6-QL60-421	C6	QL60	60	421	393	396	3000	10,6
	A3001-C8-QL60-301	C8	QL60	60	301	263	268	4000	8,6
	A3001-C8-QL60-421	C8	QL60	60	421	383	388	3000	11,4
	A3001-C8-QL60-541	C8	QL60	60	541	503	508	2000	14
	A3001-C8-QL80-421	C8	QL80	80	421	383	388	3000	18,8
	A3001-C8-QL80-581	C8	QL80	80	581	543	548	2000	25,1

QuadFit exchangeable heads – see the "Turning" section

A2201 intermediate adaptor – see the "Boring bars/adaptors" section

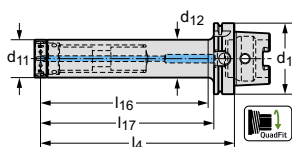
Bodies and assembly parts are included in the scope of delivery.

Assembly parts	d ₁₁	QL60	QL80
	Threaded plug Tightening torque	FS2609 11 Nm	FS2610 16 Nm
	Allen key	ISO2936-4 (SW 4)	ISO2936-5 (SW 5)

HSK-T boring bar/adaptor – vibration-damped

A3000-HSK-T mm
Accure-tec


- For QuadFit exchangeable heads
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	HSK-T DIN 69893-7								
	A3000-H63T-Q25-130	63	Q25	25	130	101	104	10000	1,1
	A3000-H63T-Q25-180	63	Q25	25	180	151	154	8000	1,3
	A3000-H63T-Q25-230	63	Q25	25	230	201	204	6000	1,5
	A3000-H63T-Q32-160	63	Q32	32	160	128	134	10000	1,6
	A3000-H63T-Q32-224	63	Q32	32	224	192	198	8000	2
	A3000-H63T-Q40-208	63	Q40	40	208	176	182	8000	2,7
	A3000-H63T-Q40-288	63	Q40	40	288	256	262	6000	3,5
	A3000-H63T-Q50-268	63	Q50	50	268	241	242	6000	4,8
	A3000-H63T-Q50-368	63	Q50	50	368	341	342	4000	6,4
	A3000-H100T-Q32-224	100	Q32	32	224	189	195	8000	3,4
	A3000-H100T-Q32-288	100	Q32	32	288	253	259	6000	3,8
	A3000-H100T-Q40-288	100	Q40	40	288	253	259	6000	4,9
	A3000-H100T-Q40-368	100	Q40	40	368	333	339	5000	5,8
	A3000-H100T-Q50-268	100	Q50	50	268	234	239	6000	6,2
	A3000-H100T-Q50-368	100	Q50	50	368	334	339	4000	7,8
	A3000-H100T-Q50-468	100	Q50	50	468	434	439	2500	9,7

QuadFit exchangeable heads – see the "Turning" section
 Bodies and assembly parts are included in the scope of delivery.

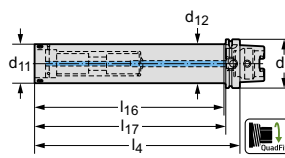
Assembly parts		d ₁₁	Q25	Q32	Q40	Q50
	Hook wrench		SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
	Tightening torque		25 Nm	25 Nm	35 Nm	55 Nm

Accessories		d ₁₁	Q32	Q40	Q50
	Torque wrench with hook		SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
	Tightening torque		25 Nm	35 Nm	55 Nm
	Hook for torque wrench		SD6000-Q32	SD6000-Q40	SD6000-Q50

HSK-T boring bar/adaptor – vibration-damped

A3001-HSK-T
Accure-tec

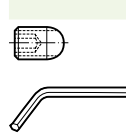

- For A2201 intermediate adaptor with QuadFit interface
- With preset vibration damping

Tool	Designation	d ₁ mm	d ₁₁	d ₁₂ mm	l ₄ mm	l ₁₆ mm	l ₁₇ mm	n _{max}	kg
	HSK-T DIN 69893-7								
	A3001-H100T-QL60-301	100	QL60	60	301	267	272	4000	8,9
	A3001-H100T-QL60-421	100	QL60	60	421	387	392	3000	11,8
	A3001-H100T-QL60-541	100	QL60	60	541	507	512	2000	14,5
	A3001-H100T-QL80-421	100	QL80	80	421	387	392	3000	19,4
	A3001-H100T-QL80-581	100	QL80	80	581	547	552	2000	26,2

QuadFit exchangeable heads – see the "Turning" section

A2201 intermediate adaptor – see the "Boring bars/adaptors" section

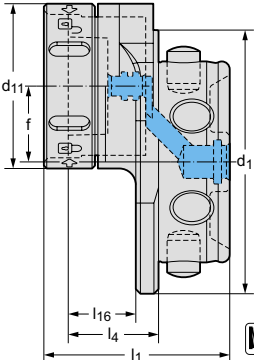
Bodies and assembly parts are included in the scope of delivery.

Assembly parts		QL60		QL80	
	d ₁₁				
	Threaded plug Tightening torque	FS2609 11 Nm		FS2610 16 Nm	
	Allen key	ISO2936-4 (SW 4)		ISO2936-5 (SW 5)	

QuadFit Large intermediate adaptor

A2201 mm
Accure-tec


- QuadFit
- For A3001 Accure-tec boring bars

Tool		Designation	d ₁₁	d ₁	f mm	l ₁ mm	l ₄ mm	l ₁₆ mm	kg
		A2201-QL60-05-27-Q50	Q50	QL60	5	50,4	27	21,5	0,6
		A2201-QL60-10-27-Q50	Q50	QL60	10	50,4	27	21,5	0,6
		A2201-QL80-15-27-Q50	Q50	QL80	15	56,4	27	21,5	0,9
		A2201-QL80-23-27-Q50	Q50	QL80	23	56,4	27	21,5	0,9
		A2201-QL100-28-29-Q50	Q50	QL100	28	61,4	29	21,5	1,5
		A2201-QL100-38-29-Q50	Q50	QL100	38	61,4	29	21,5	1,5

QuadFit exchangeable heads – see the "Turning" section
 Bodies and assembly parts are included in the scope of delivery.

Assembly parts		d ₁₁	Q50
	Hook wrench		SD9000-Q50
	Tightening torque		55 Nm
Accessories		d ₁₁	Q50
	Torque wrench with hook		SD4000-Q50-55
	Tightening torque		55 Nm
	Hook for torque wrench		SD6000-Q50

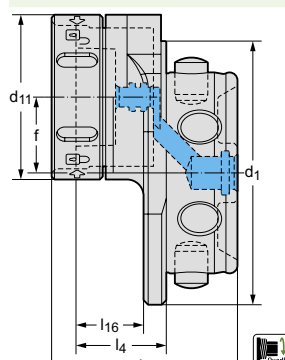
QuadFit Large intermediate adaptor

A2201 inch

Accure-tec



- QuadFit
- For A3001 Accure-tec boring bars

Tool	Designation	d ₁₁	d ₁	f inch	l ₁ inch	l ₄ inch	l ₁₆ inch	lbs
	A2201.QL64-07-27-Q50	Q50	QL64	0,266	1,988	1,063	0,846	2,2
	A2201.QL64-12-27-Q50	Q50	QL64	0,463	1,988	1,063	0,846	2,2
	A2201.QL76-13-27-Q50	Q50	QL76	0,516	2,228	1,063	0,846	2,2
	A2201.QL76-21-27-Q50	Q50	QL76	0,831	2,228	1,063	0,846	2,2

QuadFit exchangeable heads – see the "Turning" section
Bodies and assembly parts are included in the scope of delivery.

Assembly parts		d ₁₁	Q50
	Hook wrench		SD9000-Q50
	Tightening torque		55 Nm

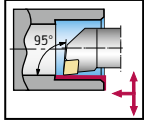
Accessories		d ₁₁	Q50
	Torque wrench with hook		SD4000-Q50-55
	Tightening torque		55 Nm
	Hook for torque wrench		SD6000-Q50

Exchangeable head – rigid clamping

Q...-DCLN

Walter Turn

- QuadFit
- For Accure-tec boring bars



Left

Right



Tool

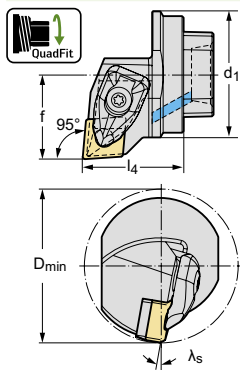


Fig. shows right-hand version

Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
Q32-DCLNR-22032-12	12	Q32	40	22	32	-6°	-10°	CN .. 1204 ..
Q40-DCLNR-27032-12	12	Q40	50	27	32	-6°	-10°	
Q50-DCLNR-32032-12	12	Q50	63	32	32	-6°	-8°	
Q50-DCLNR-32037-16	16	Q50	63	32	37	-5°	-14°	CN .. 1606 ..
Q32-DCLNL-22032-12	12	Q32	40	22	32	-6°	-10°	CN .. 1204 ..
Q40-DCLNL-27032-12	12	Q40	50	27	32	-6°	-10°	
Q50-DCLNL-32032-12	12	Q50	63	32	32	-6°	-8°	
Q50-DCLNL-32037-16	16	Q50	63	32	37	-5°	-14°	CN .. 1606 ..

Measured with master insert: CN .. 120408/CN .. 160612

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	CN .. 1204 ..	CN .. 1606 ..
 Shim	AP354-CN12	AP302-CN16
 Screw for shim Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS1463 (Torx 20IP) 5,0 Nm
 Clamp	PK241	PK242
 Clamp screw Tightening torque	FS1473 (Torx 15IP) 3,9 Nm	FS1474 (Torx 20IP) 6,4 Nm
 Pressure spring	FS1470	FS1471
 Pin	RS117	RS117
 Torx key	FS1465 (Torx 15IP / SW 3,5)	FS1464 (Torx 20IP)

Accessories

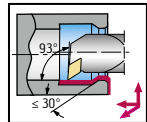
Type	CN .. 1204 ..	CN .. 1606 ..
 Clamp set (standard assembly parts)	PK241 SET	PK242 SET
 Carbide clamp set Insert with bore	PK245 SET	PK246 SET
Carbide clamp set Insert without bore	PK254 SET	

Exchangeable head – rigid clamping

Q...-DDUN

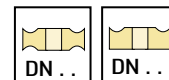
Walter Turn

- QuadFit
- For Accure-tec boring bars

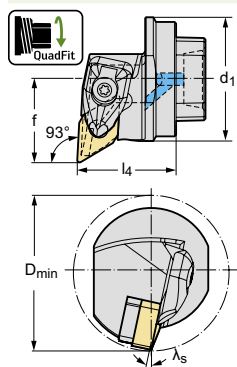


Left

Right



Tool



Designation

Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
Q32-DDUNR-22032-11	11	Q32	40	22	32	-6°	-10°	DN .. 1104 ..
Q40-DDUNR-27032-11	11	Q40	50	27	32	-5°	-10°	
Q32-DDUNR-22032-15	15	Q32	40	21,9	32	-6°	-14°	DN .. 1506 ..
Q40-DDUNR-27032-15	15	Q40	50	27	32	-6°	-12°	
Q50-DDUNR-32032-15	15	Q50	63	32	32	-6°	-12°	
Q32-DDUNL-22032-11	11	Q32	40	22	32	-6°	-10°	DN .. 1104 ..
Q40-DDUNL-27032-11	11	Q40	50	27	32	-5°	-10°	
Q32-DDUNL-22032-15	15	Q32	40	21,9	32	-6°	-14°	DN .. 1506 ..
Q40-DDUNL-27032-15	15	Q40	50	27	32	-6°	-12°	
Q50-DDUNL-32032-15	15	Q50	63	32	32	-6°	-12°	

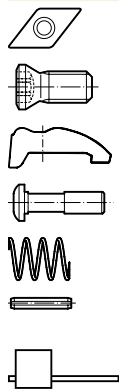
Fig. shows right-hand version

Measured with master insert: DN .. 150608/DN .. 110408

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts



Type	DN .. 1104 ..	DN .. 1506 ..
Shim	AP305-DN11	AP304-DN15
Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
Clamp	PK240	PK241
Clamp screw Tightening torque	FS1472 (Torx 9IP) 1,7 Nm	FS1473 (Torx 15IP) 3,9 Nm
Pressure spring	FS1469	FS1470
Pin	RS116	RS117
Torx key	FS1466 (Torx 9IP)	FS1465 (Torx 15IP /SW 3,5)

Accessories



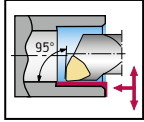
Type	DN .. 1104 ..	DN .. 1506 ..
Carbide clamp set Insert with bore		PK245 SET
Clamp set (standard assembly parts)	PK240 SET	PK241 SET
Carbide clamp set Insert without bore		PK254 SET
Shim for DN .. 1504 ..		AP304-DN1504

Exchangeable head – rigid clamping

Q...-DWLN

Walter Turn

- QuadFit
- For Accure-tec boring bars



Left

Right



Tool

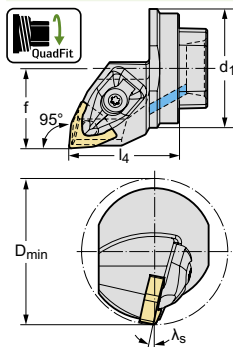


Fig. shows right-hand version

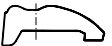
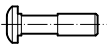
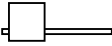
Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
Q32-DWLN-22032-06	6	Q32	40	22	32	-5°	-12°	WN .. 0604 ..
Q32-DWLN-22035-08	8	Q32	40	22	35	-5°	-14°	WN .. 0804 ..
Q40-DWLN-27037-08	8	Q40	50	27	37	-5°	-12°	
Q50-DWLN-32038-08	8	Q50	63	32	38	-5°	-12°	
Q32-DWLN-22032-06	6	Q32	40	22	32	-5°	-12°	WN .. 0604 ..
Q32-DWLN-22035-08	8	Q32	40	22	35	-5°	-14°	WN .. 0804 ..
Q40-DWLN-27037-08	8	Q40	50	27	37	-5°	-12°	
Q50-DWLN-32038-08	8	Q50	63	32	38	-5°	-12°	

Measured with master insert: WN .. 080408/WN .. 060408

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	WN .. 0604 ..	WN .. 0804 ..
 Shim	AP306-WN06	AP331-WN08
 Screw for shim Tightening torque	FS1462 (Torx 9IP) 1,5 Nm	FS1461 (Torx 15IP) 2,5 Nm
 Clamp	PK240	PK241
 Clamp screw Tightening torque	FS1472 (Torx 9IP) 1,7 Nm	FS1473 (Torx 15IP) 3,9 Nm
 Pressure spring	FS1469	FS1470
 Pin	RS116	RS117
 Torx key	FS1466 (Torx 9IP)	FS1465 (Torx 15IP / SW 3,5)

Accessories

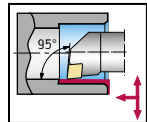
Type	WN .. 0604 ..	WN .. 0804 ..
 Clamp set (standard assembly parts)	PK240 SET	PK241 SET
 Carbide clamp set Insert with bore		PK245 SET
Carbide clamp set Insert without bore		PK254 SET

Exchangeable head – screw clamping

Q...-SCLC

Walter Turn

- QuadFit
- For Accuretec boring bars



Left

Right



Tool

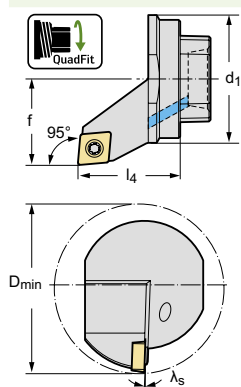


Fig. shows right-hand version

Designation

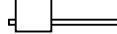
Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
Q25-SCLCR-17020-09	9	Q25	32	17	20	0°	-3°	CC .. 09T3 ..
Q32-SCLCR-22032-09	9	Q32	40	22	32	0°	-2°	
Q40-SCLCR-27032-09	9	Q40	50	27	32	0°	-2°	
Q50-SCLCR-32032-09	9	Q50	63	32	32	0°	-2°	
Q32-SCLCR-22032-12	12	Q32	40	22	32	0°	-8°	CC .. 1204 ..
Q40-SCLCR-27032-12	12	Q40	50	27	32	0°	-8°	
Q50-SCLCR-32032-12	12	Q50	63	32	32	0°	-9°	
Q25-SCLCL-17020-09	9	Q25	32	17	20	0°	-3°	CC .. 09T3 ..
Q32-SCLCL-22032-09	9	Q32	40	22	32	0°	-2°	
Q40-SCLCL-27032-09	9	Q40	50	27	32	0°	-2°	
Q50-SCLCL-32032-09	9	Q50	63	32	32	0°	-2°	
Q32-SCLCL-22032-12	12	Q32	40	22	32	0°	-8°	CC .. 1204 ..
Q40-SCLCL-27032-12	12	Q40	50	27	32	0°	-8°	
Q50-SCLCL-32032-12	12	Q50	63	32	32	0°	-9°	

Measured with master insert: CC .. 09T308/CC .. 120408

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

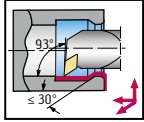
Assembly parts	Type D _{min} [mm]	CC .. 09T3 .. 32	CC .. 09T3 .. 40–63	CC .. 1204 .. 40–63
	Clamping screw for indexable insert Tightening torque	FS1461 (Torx 15IP) 2,5 Nm	FS2062 (Torx 15IP) 3,0 Nm	FS2281 (Torx 20IP) 5,0 Nm
	Shim			AP364-CC1208
	Screw for shim			FS2592 (SW 5)
	Torx key	FS1465 (Torx 15IP / SW 3,5)	FS1465 (Torx 15IP / SW 3,5)	
	Allen key			FS1464 (Torx 20IP)
	Allen key for shim			ISO2936-5 (SW 5)

Exchangeable head – screw clamping

Q...-SDUC

Walter Turn

- QuadFit
- For Accure-tec boring bars



Left

Right



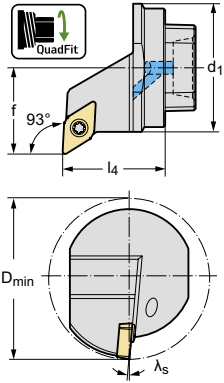
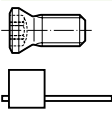
Tool	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
	Q25-SDUCR-17020-11	11	Q25	32	17	20	0°	-6°	DC .. 11T3 ..
	Q32-SDUCR-22032-11	11	Q32	40	22	32	0°	-5°	
	Q40-SDUCR-27032-11	11	Q40	50	27	32	0°	-5°	
	Q50-SDUCR-32032-11	11	Q50	63	32	32	0°	-5°	
	Q25-SDUCL-17020-11	11	Q25	32	17	20	0°	-6°	
	Q32-SDUCL-22032-11	11	Q32	40	22	32	0°	-5°	
	Q40-SDUCL-27032-11	11	Q40	50	27	32	0°	-5°	
	Q50-SDUCL-32032-11	11	Q50	63	32	32	0°	-5°	

Fig. shows right-hand version

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

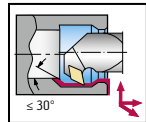
Assembly parts		DC .. 11T3 ..
	Type	
	Clamping screw for indexable insert Tightening torque	FS1461 (Torx 15IP) 2,5 Nm
	Torx key	FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

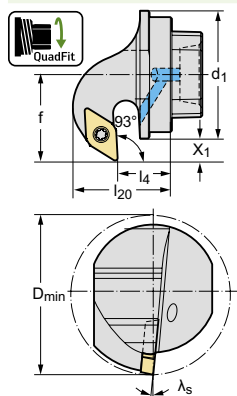
Q...-SDUC...-X

Walter Turn

- QuadFit
- For Accre-tec boring bars



Tool



Designation

Q25-SDUCR-17012-11X	11	Q25	32	17	12	24,5	4,5	0°	-6°	DC .. 11T3 ..
Q32-SDUCR-22018-11X	11	Q32	40	21,9	18	37,5	5,9	0°	-5°	
Q40-SDUCR-27017-11X	11	Q40	50	26,9	17	40,5	6,9	0°	-5°	
Q50-SDUCR-32017-11X	11	Q50	63	32	17	42,5	6,9	0°	-5°	
Q25-SDUCL-17012-11X	11	Q25	32	17	12	24,5	4,5	0°	-6°	
Q32-SDUCL-22018-11X	11	Q32	40	21,9	18	37,5	5,9	0°	-5°	
Q40-SDUCL-27017-11X	11	Q40	50	26,9	17	40,5	6,9	0°	-5°	
Q50-SDUCL-32017-11X	11	Q50	63	32	17	42,5	6,9	0°	-5°	

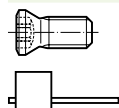
Fig. shows right-hand version

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts



Type

Clamping screw for indexable insert
Tightening torque

Torx key

DC .. 11T3 ..

FS1461 (Torx 15IP)
2,5 Nm

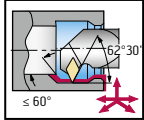
FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

Q...-SDXC

Walter Turn

- QuadFit
- For Accure-tec boring bars



Left

Right



Tool

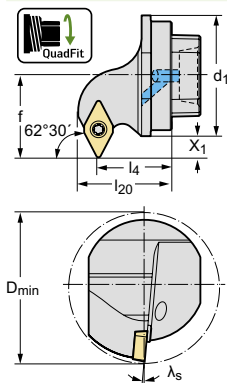


Fig. shows right-hand version

Designation

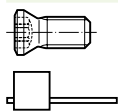
			d ₁	D _{min} mm	f mm	l ₄ mm	l ₂₀ mm	X ₁ mm	γ	λ _s	Type
Q25-SDXCR-17018-11	11	Q25	32	17	18	24,3	4,5	0°	-6°		DC .. 11T3 ..
Q32-SDXCR-22025-11	11	Q32	40	21,9	25	37,5	5,9	0°	-5°		
Q40-SDXCR-27025-11	11	Q40	50	26,9	25	40,5	6,9	0°	-5°		
Q50-SDXCR-32025-11	11	Q50	63	31,9	25	42,5	6,9	0°	-5°		
Q25-SDXCL-17018-11	11	Q25	32	17	18	24,3	4,5	0°	-6°		
Q32-SDXCL-22025-11	11	Q32	40	21,9	25	37,5	5,9	0°	-5°		
Q40-SDXCL-27025-11	11	Q40	50	26,9	25	40,5	6,9	0°	-5°		
Q50-SDXCL-32025-11	11	Q50	63	31,9	25	42,5	6,9	0°	-5°		

Measured with master insert: DC .. 11T308

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts



Type

Clamping screw for indexable insert
Tightening torque

Torx key

DC .. 11T3 ..

FS1461 (Torx 15IP)
2,5 Nm

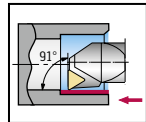
FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – screw clamping

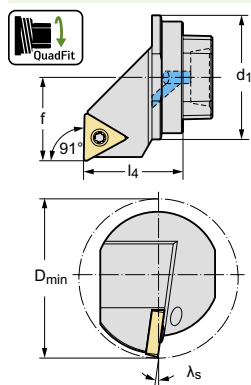
Q...-STFC

Walter Turn

- QuadFit
- For Accre-tec boring bars



Tool



Designation

Q25-STFCR-17020-11	11	Q25	32	17	25,5	0°	-3°	TC .. 1102 ..
Q32-STFCR-22032-16	16	Q32	40	22	32	0°	-10°	
Q40-STFCR-27032-16	16	Q40	50	27	32	0°	-8°	
Q50-STFCR-32032-16	16	Q50	63	32	32	0°	-8°	
Q25-STFCL-17020-11	11	Q25	32	17	25,5	0°	-3°	TC .. 1102 ..
Q32-STFCL-22032-16	16	Q32	40	22	32	0°	-10°	
Q40-STFCL-27032-16	16	Q40	50	27	32	0°	-8°	
Q50-STFCL-32032-16	16	Q50	63	32	32	0°	-8°	

Fig. shows right-hand version

Measured with master insert: TC .. 16T308/TC .. 110200

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

Assembly parts



Type

Clamping screw for indexable insert
Tightening torque

TC .. 16T3 ..

FS2063 (Torx 15IP)
3,0 Nm

TC .. 1102 ..

FS2061 (Torx 7IP)
0,9 Nm



Shim
for radius

AP317-TC1612
r ≤ 1,2 mm



Screw for shim

FS2068 (SW 3,5)



Torx key

FS1465 (Torx 15IP /SW 3,5)

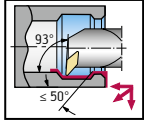
FS1490 (Torx 7IP)

Exchangeable head – screw clamping

Q...-SVUB

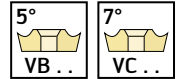
Walter Turn

- QuadFit
- For Accure-tec boring bars



Left

Right



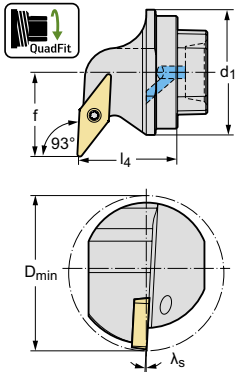
Tool	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
	Q25-SVUBR-17020-11	11	Q25	32	17	20	0°	-4°	VB .. 1103 .. VC .. 1103 ..
	Q32-SVUBR-22032-16	16	Q32	40	22	32	0°	-3°	VB .. 1604 .. VC .. 1604 ..
	Q40-SVUBR-27032-16	16	Q40	50	26,9	32	0°	-3°	
	Q50-SVUBR-32032-16	16	Q50	63	31,9	32	0°	-3°	
	Q25-SVUBL-17020-11	11	Q25	32	17	20	0°	-4°	VB .. 1103 .. VC .. 1103 ..
	Q32-SVUBL-22032-16	16	Q32	40	22	32	0°	-3°	VB .. 1604 .. VC .. 1604 ..
	Q40-SVUBL-27032-16	16	Q40	50	6,9	32	0°	-3°	
	Q50-SVUBL-32032-16	16	Q50	63	31,9	32	0°	-3°	

Fig. shows right-hand version

Measured with master insert: VB .. 160408/VB .. 110304

For information on the rake angle γ (for indexable inserts without chip groove) and on the inclination angle λ_s, see "Technical information – ISO turning"

Bodies and assembly parts are included in the scope of delivery.

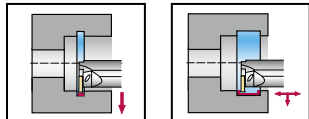
Assembly parts	Type	VB .. 1103 .. VC .. 1103 ..	VB .. 1604 .. VC .. 1604 ..
	Clamping screw for indexable insert Tightening torque	FS2061 (Torx 7IP) 0,9 Nm	FS2063 (Torx 15IP) 3,0 Nm
	Shim for radius		AP316-VB1608 r ≤ 0,8 mm
	Screw for shim		FS2068 (SW 3,5)
	Torx key	FS1490 (Torx 7IP)	FS1465 (Torx 15IP /SW 3,5)

Exchangeable head – Internal grooving

G4221-Q...-P

Walter Cut

- QuadFit
- For Accure-tec boring bars



Left

Right



Tool	Designation	s mm	T _{max} mm	D _{min} mm	d ₁ mm	f mm	l ₁ mm	l ₂₁ mm	s ₁ mm	Type
	G4221-Q32R-3T12DX18-P	3	12	50	32	29,7	38,5	30,5	2,4	DX18-3E3...
	G4221-Q40R-3T12DX18-P		12	55	40	33,7	41,5	30,5	2,4	
	G4221-Q50R-3T12DX18-P		12	80	50	38,7	43,5	30,5	2,4	
	G4221-Q32L-4T12DX18-P	4	12	50	32	29,7	38,5	30	3,4	DX18-4E4...
	G4221-Q40L-4T12DX18-P		12	55	40	33,7	41,5	30	3,4	
	G4221-Q50L-4T12DX18-P		21	80	50	47,7	43,5	30	3,4	
	G4221-Q32L-3T12DX18-P	3	12	50	32	29,7	38,5	30,5	2,4	DX18-3E3...
	G4221-Q40L-3T12DX18-P		12	55	40	33,7	41,5	30,5	2,4	
	G4221-Q50L-3T12DX18-P		12	80	50	38,7	43,5	30,5	2,4	
	G4221-Q32L-4T12DX18-P	4	12	50	32	29,7	38,5	30	3,4	DX18-4E4...
	G4221-Q40L-4T12DX18-P		12	55	40	33,7	41,5	30	3,4	
	G4221-Q50L-4T12DX18-P		21	80	50	47,7	43,5	30	3,4	

Fig. shows right-hand version

$$l_1 = l_{21} + s/2$$

The maximum recommended coolant pressure is 150 bar (2175 psi)

Bodies and assembly parts are included in the scope of delivery.

Note: Tool available from 11/2021.

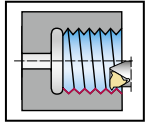
Assembly parts	Type D _{min} [mm]	Q32	Q40	Q50
	Clamping screw for indexable insert Tightening torque	FS2614 (Torx 20IP) 5,0 Nm	FS2089 (Torx 25IP) 5,0 Nm	FS2614 (Torx 20IP) 5,0 Nm
	Threaded plug	M03X006 ISO 4026	M03X006 ISO 4026	M03X006 ISO 4026
	Key	FS1464 (Torx 20IP)	FS1592 (Torx 25IP)	FS1464 (Torx 20IP)

Exchangeable head – Internal thread

T1820-Q...-P

Walter NTS

- QuadFit
- Precision cooling



Left

Right



Tool

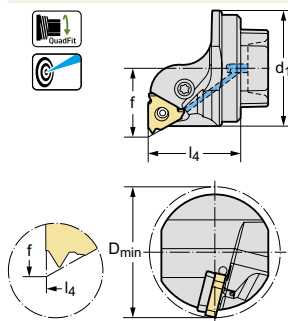


Fig. shows right-hand version

Designation		d ₁	D _{min} mm	f mm	l ₄ mm	β	Type
T1820-Q25R-16I-P	16	Q25	29	16,3	25	1°	NTS-I . -16 ..
T1820-Q32R-16I-P	16	Q32	36	19,8	32	1°	
T1820-Q40R-16I-P	16	Q40	44	23,8	32	1°	
T1820-Q50R-16I-P	16	Q50	54	28,8	32	1°	
T1820-Q32R-22I-P	22	Q32	38	21,3	32	1°	NTS-I . -22 ..
T1820-Q40R-22I-P	22	Q40	46	25,3	32	1°	
T1820-Q50R-22I-P	22	Q50	56	30,3	32	1°	
T1820-Q25L-16I-P	16	Q25	29	16,3	25	1°	NTS-I . -16 ..
T1820-Q32L-16I-P	16	Q32	36	19,8	32	1°	
T1820-Q40L-16I-P	16	Q40	44	23,8	32	1°	
T1820-Q50L-16I-P	16	Q50	54	28,8	32	1°	
T1820-Q32L-22I-P	22	Q32	38	21,3	32	1°	NTS-I . -22 ..
T1820-Q40L-22I-P	22	Q40	46	25,3	32	1°	
T1820-Q50L-22I-P	22	Q50	56	30,3	32	1°	

For information on the inclination angle β and compatible shim, see "Technical information – Thread turning"

The maximum recommended coolant pressure is 150 bar (2175 psi)

Bodies and assembly parts are included in the scope of delivery.

Assembly parts

Type	NTS-I . -16 ..	NTS-I . -22 ..
 Shim	GXA16-1	NXA22-1
 Clamping screw Tightening torque	FS2615 (Torx 15IP) 2,0 Nm	FS2616 (Torx 25IP) 5,0 Nm
 Lever	KN129	KN130
 Pin	RS123	RS124
 Torx key	FS1465 (Torx 15IP /SW 3,5)	
 Allen key		FS1592 (Torx 25IP)

Application information: Accuretec A300 – vibration-damped boring bars for turning

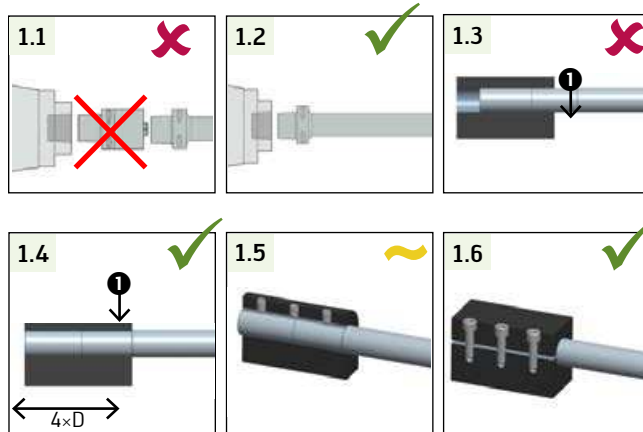
1. Assembly recommendations

The Accuretec vibration-damped boring bars are instantly ready for use. The built-in damping system is preset to provide the best results. The boring bars must be clamped directly onto the machine without any extensions or adaptor sleeves (see 1.1 and 1.2).

Additional recommendations are applicable when using plain cylindrical adaptors.

- Optimal clamping is achieved when clamping the boring bar directly into the lathe's tool adaptor or using a split adaptor (see 1.6) with $4 \times D$ clamping length. Example: Clamp the boring bar diameter of 40 mm with a clamping length of 160 mm.
- Marking ❶ (see 1.3 and 1.4) indicates the divide between the clamping area and usable length. This marking has to be aligned such that it is flush with the face of the machine tool adaptor.

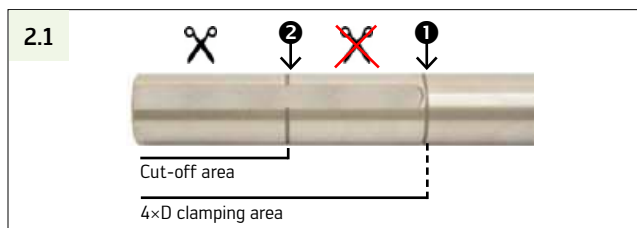
– As an alternative (though this is not ideal), the $6 \times D$ and $8 \times D$ plain cylindrical adaptors feature a clamping surface in the clamping length range suitable for clamping with clamping screws (see 1.5). $10 \times D$ boring bars do not feature this clamping surface and can reach maximum stability only if clamped using a split adaptor (see 1.6).



2. Shortening plain cylindrical adaptors

An optimal clamping system is achieved using the Accuretec boring bars as delivered. If necessary, the adaptor can be shortened within the cut-off area between the end of the boring bar and the first marking ❷.

Take care: Shortening the boring bars will also remove the coolant connection thread.



3. Assembling and disassembling QuadFit exchangeable heads

Turning and boring heads are fitted on the Accuretec boring bars/adaptors using the QuadFit interface. The QuadFit interface allows quick and easy replacement of exchangeable heads, with perfect positioning and repeat accuracy.

Assembly

- Clamp the Accuretec boring bar to an assembly block or directly into the lathe tool adaptor.
- Ensure the bar and QuadFit interfaces are clean.
- Use the exchangeable head in a standard or overhead position (turned 180°).
- Tighten the union nut on the boring bar by hand.
- (Tighten the union nut in the direction of the "locked padlock" symbol (see 3.1)).
- Tighten the nut with the appropriate key.

Note:

Using a torque wrench is advisable, to comply with the recommended tightening torque. Torque wrenches are available as an accessory (see Table 3.2).

Disassembly

- Loosen the union nut using the appropriate key (do not use a torque wrench).
- Hold the exchangeable head and turn the nut manually until the head can be released. Turn the union nut in the direction of the "open padlock" symbol (see 3.1).



3.2. Tightening key/tightening torque

Connection size	Q25	Q32	Q40	Q50
Mounting wrench	SD9000-Q25	SD9000-Q32	SD9000-Q40	SD9000-Q50
Torque wrench	–	SD4000-Q32-25	SD4000-Q40-35	SD4000-Q50-55
Tightening torque	25 Nm	25 Nm	35 Nm	55 Nm

4. Speed limits for boring

Please make sure not to exceed the max. speed of the vibration-damped boring bar/adaptor (see Table 4.1).

Note:

Plain cylindrical adaptors are intended for static applications (turning) only. The specified maximum speed is not applicable.

4.1. Maximum speed in boring [rpm]*

Connection size	Length		
	6 × D	8 × D	10 × D
Q25	10000	8000	6000
Q32	10000	8000	6000
Q40	8000	6000	5000
Q50	6000	4000	2500

* The maximum speed can be lower, depending on the rigidity of the spindle.

5. Maximum temperature in use

Make sure that the Accuretec boring bar never exceeds the maximum temperature of use, as this would damage the damping system.

Maximum temperature in use = 80 °C/176 °F

6. Recommended cutting data

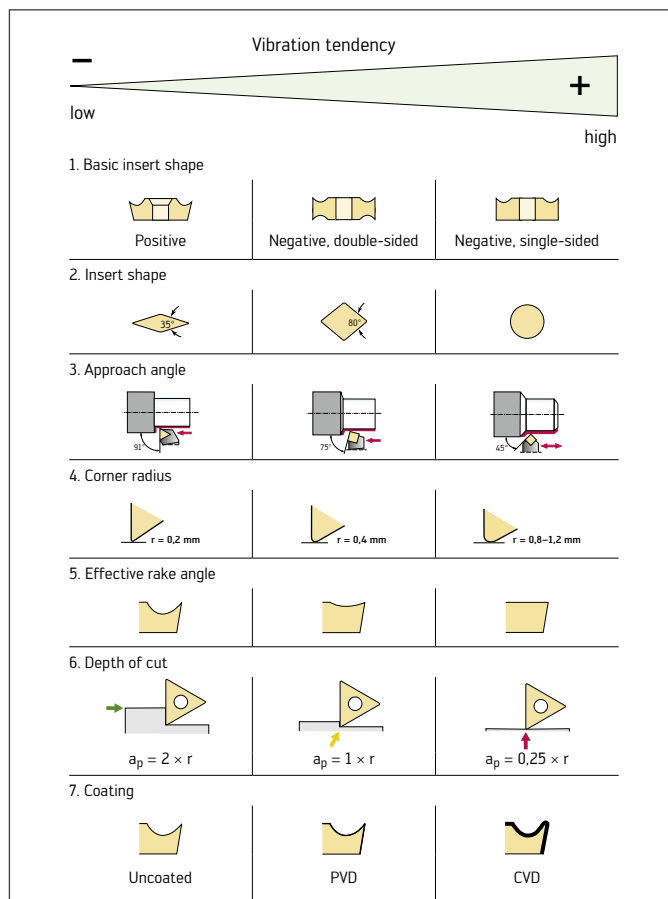
Incorrect cutting data could cause vibration in the tooling system. This would influence the damper's efficiency and could damage the Accuretec boring bar's components. Therefore, make sure to set the cutting data so that no vibration is created.

Cutting data selection order:

1. Cutting speed v_c and feed f : Select the average value for the indexable insert you are using (see Walter General Catalogue or Walter GPS tool navigation system).
2. Depth of cut a_p is the preferred parameter for optimisation. It can be increased within the recommended application range of the indexable insert provided that no vibration occurs.

Take care:

- In contrast to the use of conventional boring bars, machining cannot be stabilised using additional radial forces (e.g. by increasing the feed).
- Particularly for small boring bars (< 32 mm dia.), be mindful of good chip control to avoid chips getting stuck in the bore.



Application information: Accure-tec A3001 – vibration-damped boring bars/adaptors with QuadFit Large interface

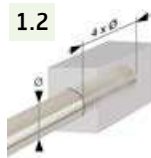


1. Installation instructions

1.1



1.2



2. Installation of QuadFit Large intermediate adaptor

2.1



2.2



2.3



2.4



2.5



For QL size	4 × bolt 	Tightening torque	
		Nm	ft Lb
QL60 / QL64	FS2609	11	8.2
QL80 / QL76	FS2610	16	11.8
QL100	FS2611	23	16.9

3. Installation of QuadFit exchangeable head

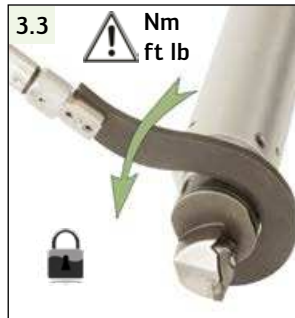
3.1



3.2

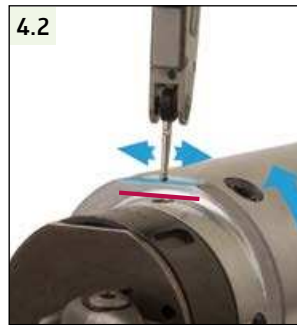
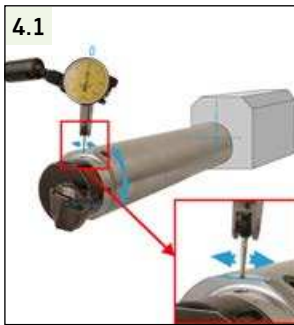


3.3



For QuadFit size	Tightening torque	
	Nm	ft Lb
GL 50	55	40.6

4. Centre height adjustment



5. Removal of QuadFit (Q) and QuadFit Large (QL) exchangeable heads



6. Max. permitted operating temperature and load

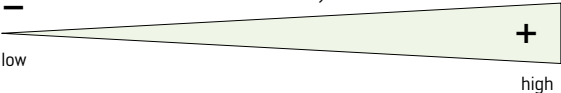
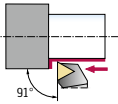
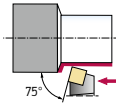
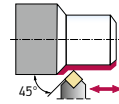


8. Safety recommendations

- Risk of injury due to tool cutting edges
- Protective gloves recommended
- Observe the tool manufacturer's recommended cutting speeds



7. Cutting edge and tool design

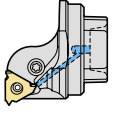
Vibration tendency  low high			
1. Basic insert shape	 Positive	 Negative, double-sided	 Negative, single-sided
2. Insert shape	 35°	 80°	
3. Approach angle	 91°	 75°	 45°
4. Corner radius	 $r = 0,2 \text{ mm}$	 $r = 0,4 \text{ mm}$	 $r = 0,8-1,2 \text{ mm}$
5. Effective rake angle			
6. Depth of cut	 $a_p = 2 \times r$	 $a_p = 1 \times r$	 $a_p = 0,25 \times r$
7. Coating	 Uncoated	 PVD	 CVD

Application information: Thread turning with Walter NTS

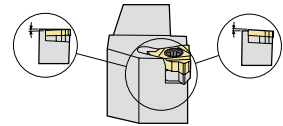
Thread turning – Shims

Shims fitted in the tool holder exchangeable head

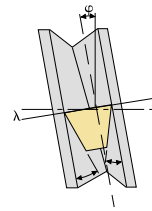
The table shows the shims that are fitted in the tool holder as standard and are used when cutting in the direction of the head stock.

Tool adaptor		QuadFit Q...-T1820... exchangeable head with precision cooling	
Tool adaptor		 Internal thread	
Indexable insert type		Single-tooth indexable insert	
Shim			
Indexable insert size	16	GXA 16-1	
	22	NXA 22-1	

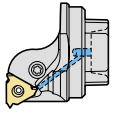
By replacing the shim, the inclination angle can be selected between +5 and -2. The same shims should be used for right-hand and left-hand threads. The centre height dimension always remains constant.



To achieve the best possible profile accuracy and even wear, the indexable insert inclination angle (λ) must correspond to the thread inclination angle (ϕ) as closely as possible.



Selecting a shim

Tool adaptor		QuadFit Q...-T1820... exchangeable head with precision cooling	
Tool adaptor		 Internal thread	
Indexable insert type		Single-tooth indexable insert	
Shim		 Direction of cut towards the head stock	 Direction of cut towards the tail stock
Indexable insert size	16	GXA16-0, -1, -2, -3, -4	GXA16-0, -99, -98
	22	NXA22-0, -1, -2, -3, -4	NXA22-0, -99, -98

Selecting a shim

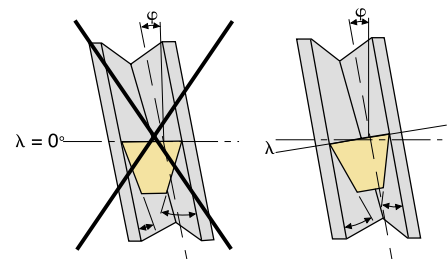
Use the diagram to the right to select the correct shim.
The diagram shows you the last digit in the shim designation.
Example: GX16-1

Production method

Direction of cut towards the head stock = see right-hand triangle on the diagram
Direction of cut towards the tail stock = see left-hand triangle on the diagram

Vertical rows – Pitch

Single-start thread, pitch height (P_h) = pitch (P)
Multi-start thread, pitch height (P_h) = pitch (P) x number of starts



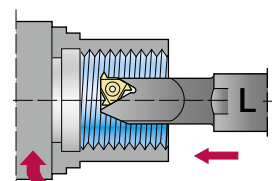
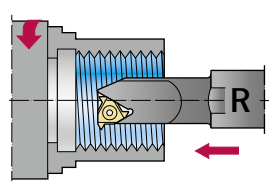
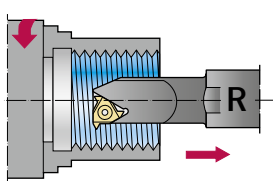
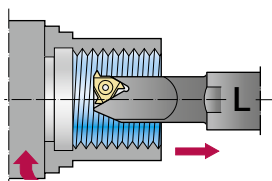
(continued)

Horizontal rows = thread diameter [D_2]

[illegible]

Feed in the direction of the head stock – internal thread

Left-hand tool holder
Left-hand insert



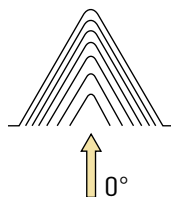
Application information: Standard values for thread turning with Walter NTS

Feed types and their influence on machining

Radial feed

Recommended for:

- Short-chipping materials
- Hard materials

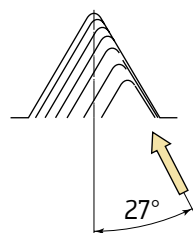


- Formation of V-shaped chips
- Both cutting edges engaged
- High cutting temperature
- Even indexable insert wear on both flanks
- Suitable for small pitches

Feed via flank 27°–29°

Recommended for:

- Pitches greater than 1.5 mm or 16 TPI
- The manufacture of trapezoidal threads

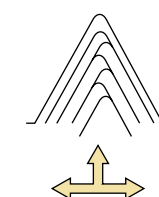


- Good chip formation
- Formation of helical chips
- One cutting edge engaged
- Chips are guided away from the thread
- Thread flanks with excellent surface quality

Alternating feed

Recommended for:

- Steep pitches
- Long-chipping materials



- Good chip formation
- Formation of flat helical chips
- Both cutting edges are evenly engaged, ensuring even wear

Standard values for the number of radial infeeds for each thread turning pass on manual lathes

The recommended cutting passes are only to be regarded as standard values. They were determined under good operating conditions with medium-strength steel materials. In the case of high-strength steel materials, the number of feeds must be increased. It is important to reduce the initial threading cuts in this case. If the operating conditions are different, the feeds should be modified accordingly. This applies to internal thread turning with an overhang of more than $2.5 \times$ the boring bar diameter.

Whitworth (WH), external and internal machining

No. of feeds	Pitch [TPI]														
	28	26	20	19	18	16	14	12	11	10	9	8	7	6	5
Total depth [mm]	0,64	0,68	0,87	0,91	1,07	1,12	1,23	1,42	1,54	1,69	1,87	2,09	2,41	2,80	3,34
16															
15															
14														0,10	0,10
13														0,12	0,12
12												0,08	0,08	0,14	0,15
11											0,08	0,12	0,12	0,14	0,17
10										0,08	0,12	0,12	0,14	0,15	0,18
9									0,08	0,12	0,12	0,13	0,15	0,16	0,19
8						0,08	0,08	0,08	0,12	0,13	0,13	0,14	0,16	0,17	0,20
7					0,08	0,10	0,11	0,13	0,13	0,13	0,14	0,15	0,18	0,19	0,22
6			0,08	0,08	0,11	0,10	0,12	0,14	0,14	0,15	0,15	0,16	0,19	0,20	0,24
5	0,08	0,08	0,11	0,12	0,13	0,12	0,13	0,15	0,16	0,16	0,17	0,18	0,21	0,21	0,27
4	0,11	0,11	0,13	0,13	0,14	0,14	0,15	0,17	0,18	0,18	0,19	0,20	0,23	0,24	0,30
3	0,12	0,14	0,15	0,16	0,17	0,16	0,18	0,21	0,21	0,21	0,22	0,23	0,27	0,28	0,36
2	0,15	0,16	0,19	0,20	0,21	0,20	0,22	0,26	0,25	0,26	0,27	0,28	0,33	0,34	0,41
1	0,18	0,19	0,21	0,22	0,23	0,22	0,24	0,28	0,27	0,27	0,28	0,30	0,35	0,36	0,43

Radial infeed [mm]

Reduce the cutting speed

Application information: Standard values for thread turning with Walter NTS

(continued)

Internal machining, metric 60°

No. of feeds	Pitch [mm]																	
	0,5	0,6	0,7	0,75	0,8	1,0	1,25	1,5	1,75	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0
Total depth [mm]	0,34	0,38	0,44	0,48	0,51	0,63	0,77	0,90	1,07	1,20	1,49	1,77	2,04	2,32	2,62	2,89	3,20	3,46
16																	0,10	0,10
15																	0,12	0,12
14														0,08	0,10	0,10	0,12	0,13
13														0,10	0,11	0,12	0,13	0,14
12												0,08	0,08	0,10	0,12	0,14	0,14	0,15
11												0,09	0,10	0,11	0,12	0,14	0,14	0,15
10											0,08	0,10	0,11	0,12	0,13	0,15	0,15	0,16
9											0,10	0,10	0,12	0,12	0,14	0,15	0,16	0,18
8									0,08	0,08	0,10	0,11	0,13	0,13	0,15	0,16	0,17	0,19
7									0,09	0,10	0,11	0,12	0,14	0,14	0,16	0,17	0,18	0,20
6							0,08	0,08	0,09	0,11	0,12	0,13	0,15	0,15	0,19	0,20	0,20	0,22
5						0,08	0,09	0,11	0,10	0,12	0,13	0,14	0,17	0,18	0,21	0,22	0,22	0,24
4	0,07	0,07	0,07	0,07	0,07	0,09	0,10	0,13	0,13	0,14	0,15	0,16	0,19	0,21	0,23	0,25	0,26	0,28
3	0,07	0,08	0,08	0,10	0,11	0,11	0,13	0,15	0,15	0,17	0,18	0,20	0,23	0,24	0,27	0,30	0,32	0,35
2	0,09	0,11	0,13	0,14	0,15	0,16	0,17	0,21	0,21	0,23	0,25	0,26	0,30	0,31	0,33	0,38	0,38	0,41
1	0,11	0,12	0,16	0,17	0,18	0,19	0,20	0,22	0,22	0,25	0,27	0,28	0,32	0,33	0,36	0,41	0,41	0,44

Radial infeed [mm] ← Reduce the cutting speed

Internal machining, UN 60°

No. of feeds	Pitch [TPI]															
	32	28	24	20	18	16	14	13	12	11	10	9	8	7	6	5
Total depth [mm]	0,49	0,59	0,66	0,78	0,86	0,95	1,10	1,17	1,26	1,38	1,49	1,66	1,86	2,11	2,44	2,93
16																
15																
14															0,10	0,10
13															0,11	0,12
12													0,08	0,08	0,11	0,14
11												0,08	0,10	0,11	0,12	0,14
10											0,08	0,09	0,10	0,12	0,12	0,15
9										0,08	0,10	0,10	0,11	0,12	0,13	0,16
8							0,08	0,08	0,08	0,10	0,10	0,11	0,11	0,13	0,14	0,17
9						0,08	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,14	0,15	0,18
6				0,08	0,08	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,15	0,16	0,20
5		0,08	0,08	0,09	0,10	0,10	0,11	0,12	0,13	0,13	0,13	0,14	0,15	0,17	0,18	0,22
4	0,08	0,10	0,10	0,11	0,12	0,12	0,13	0,13	0,15	0,15	0,15	0,16	0,17	0,20	0,20	0,25
3	0,10	0,10	0,14	0,13	0,14	0,14	0,15	0,16	0,18	0,18	0,18	0,19	0,21	0,23	0,24	0,30
2	0,14	0,14	0,16	0,17	0,19	0,20	0,21	0,22	0,24	0,24	0,25	0,26	0,28	0,28	0,32	0,38
1	0,17	0,17	0,18	0,20	0,23	0,22	0,23	0,25	0,27	0,27	0,27	0,28	0,30	0,34	0,35	0,42

Radial infeed [mm] ← Reduce the cutting speed

((Accure-tec

**Vibration-free machining
in difficult conditions**





Accure-tec – vibration-free machining with long milling tools.

THE TOOL

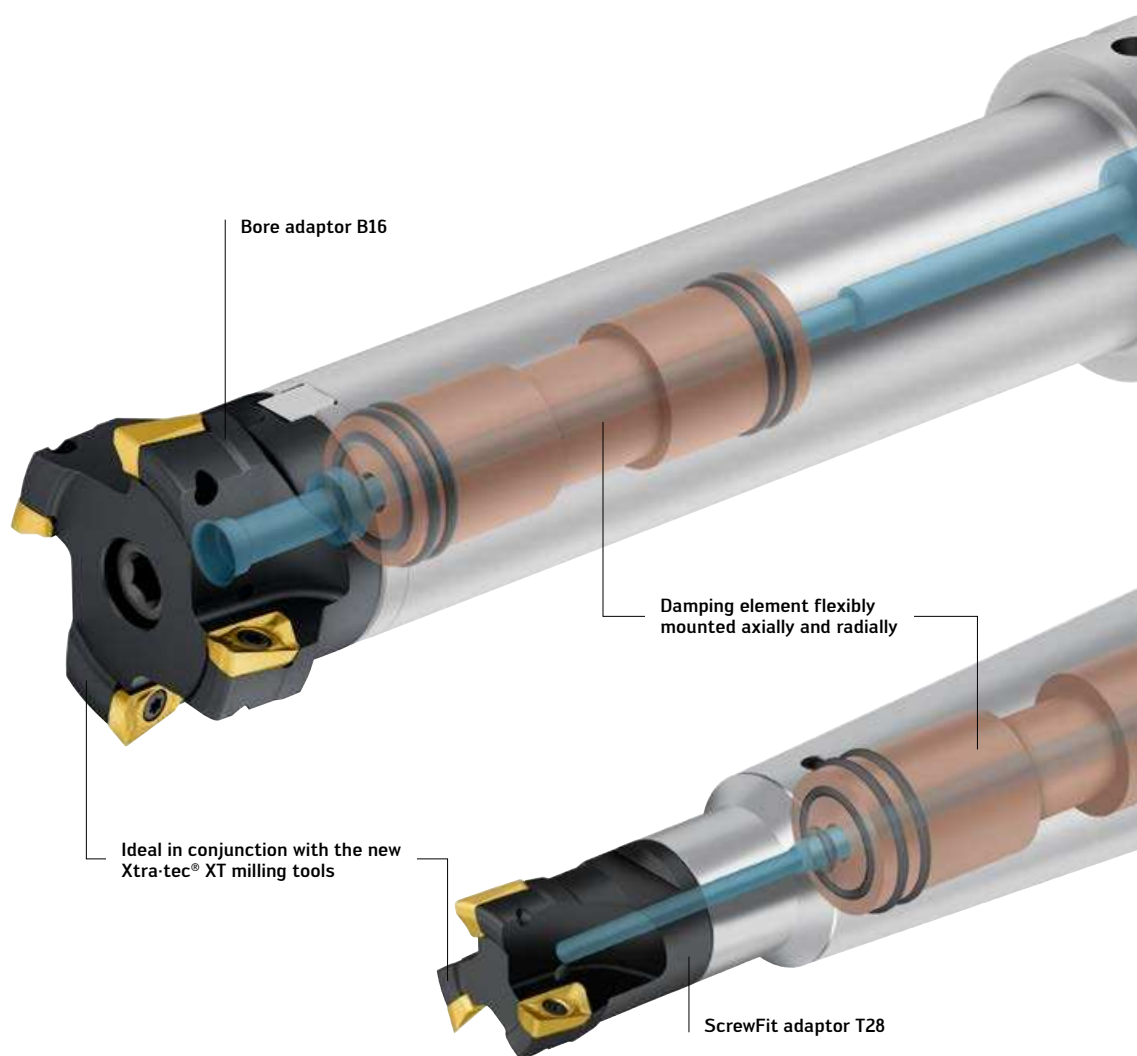
- Accure-tec AC001 and AC060 vibration-damped milling cutter adaptors with patented vibration damping
- For bore adaption milling cutters in accordance with DIN 138
- For ScrewFit milling exchangeable heads T18, T22 and T28
- Cylindrical and conical versions
- High rigidity
- Internal coolant supply
- Concentricity $< 5 \mu\text{m}$

THE INTERFACES

- Walter Capto™
- HSK-A
- SK
- MAS-BT
- CAT-V

THE APPLICATION

- Machining deep pockets
- Machining complex one-piece workpieces
- Long overhangs of up to $5 \times D$ are possible
- Areas of use: Mould and die making, aerospace industry, general mechanical engineering, automotive and energy industries



(((Accure-tec

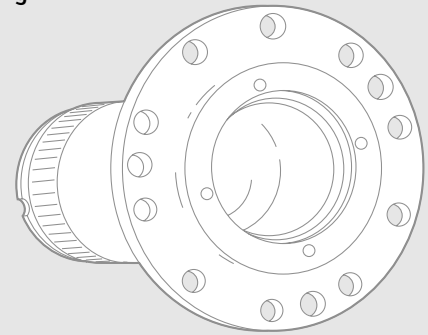
Vibration-damped end mill adaptors

Fig.: AC001-C6-B16-160, AC060-C6-T28-235



APPLICATION EXAMPLE

Shoulder milling

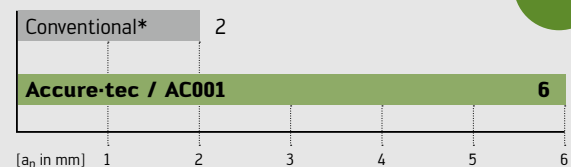


Material:	42CrMo4
Boring bar/adaptor:	AC001-H100-B27-320
Tool:	M5130 Ø63 Z4
Projection length:	4 × D
Machine:	GROB G550

Cutting data:

	Conventional undamped	Accure-tec / AC001 damped
v_c (m/min)	120	120
n (rpm)	606	606
f_z (mm)	0.2	0.2
v_f (mm/min)	485	485
a_e (mm)	25	25
a_p (mm)	2	6
Q (cm ³ /min)	25	73
R_a (µm)	1.07	0.75

Comparison: Depth of cut



* no damping

BENEFITS FOR YOU

- High level of productivity, process reliability and surface quality
- Long life of tool and spindle
- Vibration damping preset at the factory (no time lost tuning)
- Stable process producing little noise
- Depth of cut up to three times higher (compared to conventional methods)
- Optimum chip removal due to internal coolant supply

Product range overview of rotating boring bars/adaptors

Accure-tec vibration-damped adaptors for bore adaption milling cutters

Designation	AC001.K	AC001.K	AC001-C	AC001-H	A001-S	AC001-J
Tool type	Accure-tec boring bars/adaptors					
Machine-side	CAT-V in accordance with ASME B 5.50	CAT-V in accordance with ASME B 5.50	Walter Capto™ in acc. with ISO 26623	HSK in accordance with DIN 69893-1 A	SK in accordance with DIN 69871 AD/B	MAS-BT in acc. with JIS B 6339 AD/B
Tool-side	B19 / B26 / B38	B19 / B26	B16 / B22 / B27 / B32 / B40			
Page	47	47	43	44	45	46
						

Accure-tec vibration-damped boring bars/adaptors for ScrewFit exchangeable heads

Designation	AC060-C	AC060-H	AC060-S	AC060-J
Tool type	Accure-tec boring bars/adaptors			
Machine-side	Walter Capto™ in acc. with ISO 26623	HSK in accordance with DIN 69893-1 A	SK in accordance with DIN 69871 AD/B	MAS-BT in acc. with JIS B 6339 AD/B
Tool-side	T18 / T22 / T28			
Page	48	48	49	49
				

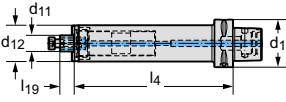
Walter Capto™ boring bar/adaptor – vibration-damped

AC001-C

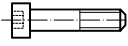
Accure-tec



- For milling tools with parallel bore according to DIN 138
- ISO 26623

Tool	Designation	d ₁	d ₁₁ mm	d ₁₂ mm	l ₄ mm	l ₁₉ mm	
	Walter Capto™ in acc. with ISO 26623 AC001-C6-B16-160	C6	16	38	160	17	2,12
	AC001-C6-B22-210	C6	22	48	210	19	3,64
	AC001-C6-B27-260	C6	27	60	260	21	6,78
	AC001-C8-B22-210	C8	22	48	210	19	4,54
	AC001-C8-B27-260	C8	27	60	260	21	7,62
	AC001-C8-B32-330	C8	32	78	330	24	14,4
	AC001-C8-B40-350	C8	40	89	350	27	18,99

Bodies and assembly parts are included in the scope of delivery.

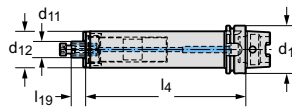
Assembly parts	d ₁₁ [mm]	16	22	27	32	40
	ISO 4762 tightening screw	FS938 (SW 6)	FS939 (SW 8)	FS940 (SW 10)	FS941 (SW 14)	FS942 (SW 17)

Accessories	d ₁₁ [mm]	16	22	27	32	40
	ISO 2936 key	ISO2936-6 (SW 6)	ISO2936-8 (SW 8)	ISO2936-10 (SW 10)	ISO2936-14 (SW 14)	ISO2936-17 (SW 17)

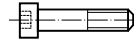
HSK boring bar/adaptor – vibration-damped

AC001-H
Accure-tec


– For milling tools with parallel bore according to DIN 138

Tool	Designation	d ₁	d ₁₁ mm	d ₁₂ mm	l ₄ mm	l ₁₉ mm	kg
 HSK DIN 69893-1 A	AC001-H63-B16-160	HSK-A63	16	38	160	17	2,4
	AC001-H63-B22-210	HSK-A63	22	48	210	19	3,54
	AC001-H63-B27-260	HSK-A63	27	60	260	21	6,56
	AC001-H100-B22-210	HSK-A100	22	48	210	19	4,8
	AC001-H100-B27-260	HSK-A100	27	60	260	21	7,92
	AC001-H100-B32-330	HSK-A100	32	78	330	24	14,42
	AC001-H100-B40-350	HSK-A100	40	89	350	27	19,34

Bodies and assembly parts are included in the scope of delivery.

Assembly parts	d ₁₁ [mm]	16	22	27	32	40
 ISO 4762 tightening screw		FS938 (SW 6)	FS939 (SW 8)	FS940 (SW 10)	FS941 (SW 14)	FS942 (SW 17)

Accessories	d ₁₁ [mm]	16	22	27	32	40
 ISO 2936 key		ISO2936-6 (SW 6)	ISO2936-8 (SW 8)	ISO2936-10 (SW 10)	ISO2936-14 (SW 14)	ISO2936-17 (SW 17)

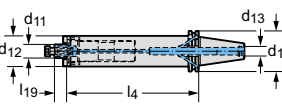
SK boring bar/adaptor – vibration-damped

AC001-S

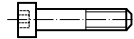
Accure-tec



- For milling tools with parallel bore according to DIN 138
- ISO 7388-1

Tool									
	Designation	d ₁	d ₁₁ mm	d ₁₂ mm	l ₄ mm	l ₁₉ mm	d ₁₃		
	SK DIN 69871 AD/B	AC001-S40-B16-160	SK40	16	38	160	17	M16	2,12
		AC001-S40-B22-210	SK40	22	48	210	19	M16	3,74
		AC001-S50-B22-210	SK50	22	48	210	19	M24	5,36
		AC001-S50-B27-260	SK50	27	60	260	21	M24	8,52
		AC001-S50-B32-330	SK50	32	78	330	24	M24	14,96
		AC001-S50-B40-350	SK50	40	89	350	27	M24	20,36

Bodies and assembly parts are included in the scope of delivery.

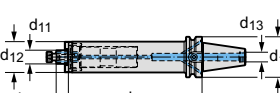
Assembly parts		d ₁₁ [mm]	16	22	27	32	40
	ISO 4762 tightening screw		FS938 (SW 6)	FS939 (SW 8)	FS940 (SW 10)	FS941 (SW 14)	FS942 (SW 17)

Accessories		d ₁₁ [mm]	16	22	27	32	40
	ISO 2936 key		ISO2936-6 (SW 6)	ISO2936-8 (SW 8)	ISO2936-10 (SW 10)	ISO2936-14 (SW 14)	ISO2936-17 (SW 17)

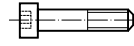
MAS-BT boring bar/adaptor – vibration-damped

AC001-J
Accure-tec


- For milling tools with parallel bore according to DIN 138
- ISO 7388-2

Tool	Designation	d ₁	d ₁₁ mm	d ₁₂ mm	l ₄ mm	l ₁₉ mm	d ₁₃		
	JIS B 6339 AD/B	AC001-J40-B16-160	BT40	16	38	160	17	M16	2,22
		AC001-J40-B22-210	BT40	22	48	210	19	M16	3,78
		AC001-J40-B27-260	BT40	27	60	260	21	M16	6,86
		AC001-J50-B22-210	BT50	22	48	210	19	M24	6,08
		AC001-J50-B27-260	BT50	27	60	260	21	M24	9,06
		AC001-J50-B32-330	BT50	32	78	330	24	M24	15,34
		AC001-J50-B40-350	BT50	40	89	350	27	M24	20,7

Bodies and assembly parts are included in the scope of delivery.

Assembly parts	d ₁₁ [mm]	16	22	27	32	40
	ISO 4762 tightening screw	FS938 (SW 6)	FS939 (SW 8)	FS940 (SW 10)	FS941 (SW 14)	FS942 (SW 17)

Accessories	d ₁₁ [mm]	16	22	27	32	40
	ISO 2936 key	ISO2936-6 (SW 6)	ISO2936-8 (SW 8)	ISO2936-10 (SW 10)	ISO2936-14 (SW 14)	ISO2936-17 (SW 17)

CAT-V boring bar/adaptor – vibration-damped

AC001.K inch



- For milling tools with parallel bore according to DIN 138
- With preset vibration damping

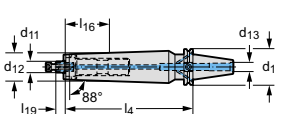
Tool	Designation	d ₁	d ₁₁ inch	d ₁₂ inch	l ₄ inch	l ₁₉ inch	d ₁₃	 lbs	
	ASME B 5.50	AC001.K40-B19-191	CAT40	0,750	1,750	7,500	0,690	5/8"-11	6,83
		AC001.K40-B26-229	CAT40	1,000	2,250	9,000	0,690	5/8"-11	13,01
		AC001.K50-B19-191	CAT50	0,750	1,750	7,500	0,690	1"-8	11,02
		AC001.K50-B26-229	CAT50	1,000	2,250	9,000	0,690	1"-8	17,64
		AC001.K50-B38-349	CAT50	1,500	3,500	13,750	0,940	1"-8	44,09

CAT-V boring bar/adaptor, conical – vibration-damped

AC001.K inch



- For milling tools with parallel bore according to DIN 138
- With preset vibration damping

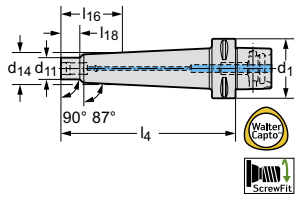
Tool	Designation	d ₁	d ₁₁ inch	d ₁₂ inch	l ₄ inch	l ₁₆ inch	l ₁₉ inch	d ₁₃	 lbs	
	ASME B 5.50	AC001.K40-B19-229	CAT40	0,750	1,750	9,000	3,125	0,690	5/8"-11	10,10
		AC001.K50-B19-229	CAT50	0,750	1,750	9,000	3,125	0,690	1"-8	13,89
		AC001.K50-B26-305	CAT50	1,000	2,250	12,000	3,096	0,690	1"-8	24,03

Walter Capto™ boring bar/adaptor – vibration-damped

AC060-C



- For ScrewFit front pieces
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₄ mm	l ₄ mm	l ₁₆ mm	l ₁₈ mm	kg
	Walter Capto™ in acc. with ISO 26623							
	AC060-C6-T18-185	C6	T18	18,5	185	24	20	2
	AC060-C6-T22-185	C6	T22	22	185	24	19,5	2,1
	AC060-C6-T28-185	C6	T28	28	185	24	18,75	2,8
	AC060-C6-T28-235	C6	T28	28	235	24	18,75	3,6

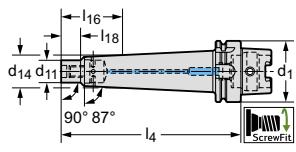
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

HSK boring bar/adaptor – vibration-damped

AC060-H



- For ScrewFit front pieces
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₄ mm	l ₄ mm	l ₁₆ mm	l ₁₈ mm	kg
	HSK DIN 69893-1 A							
	AC060-H63-T18-185	HSK-A63	T18	18,5	185	24	20	1,51
	AC060-H63-T22-185	HSK-A63	T22	22	185	24	19,5	1,9
	AC060-H63-T28-185	HSK-A63	T28	28	185	24	18,75	2,59
	AC060-H63-T28-235	HSK-A63	T28	28	235	24	18,75	3,5
	AC060-H100-T22-235	HSK-A100	T22	22	235	24	19,5	4
	AC060-H100-T28-235	HSK-A100	T28	28	235	24	18,75	4,8
	AC060-H100-T28-285	HSK-A100	T28	28	285	24	18,75	5,9

For accessories for HSK, see "Assembly parts and accessories"

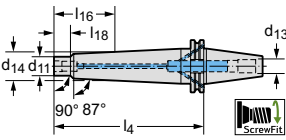
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

SK boring bar/adaptor – vibration-damped

AC060-S



- For ScrewFit front pieces
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₄ mm	l ₄ mm	l ₁₆ mm	l ₁₈ mm	d ₁₃	kg
	AC060-S40-T18-185	SK40	T18	18,5	185	24	20	M16	2,2
	AC060-S40-T22-185	SK40	T22	22	185	24	20	M16	2,2
	AC060-S40-T28-185	SK40	T28	28	185	24	20	M16	2,8
	AC060-S40-T28-235	SK40	T28	28	235	24	20	M16	3,7
	AC060-S50-T22-235	SK50	T22	22	235	24	19,5	M24	5,5
	AC060-S50-T28-235	SK50	T28	28	235	24	18,75	M24	5,5
	AC060-S50-T28-285	SK50	T28	28	285	24	18,75	M24	6,6

For pull studs for steep tapers, see "Assembly parts and accessories/Steep taper pull studs"

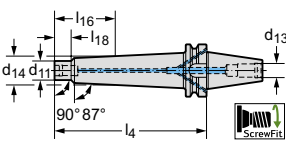
For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

MAS-BT boring bar/adaptor – vibration-damped

AC060-J



- For ScrewFit front pieces
- With preset vibration damping

Tool	Designation	d ₁	d ₁₁	d ₁₄ mm	l ₄ mm	l ₁₆ mm	l ₁₈ mm	d ₁₃	kg
	AC060-J40-T18-185	BT40	T18	18,5	185	24	20	M16	2,2
	AC060-J40-T22-185	BT40	T22	22	185	24	19,5	M16	2,2
	AC060-J40-T28-185	BT40	T28	28	185	24	18,75	M16	2,8
	AC060-J40-T28-235	BT40	T28	30	235	24	18,75	M16	3,7
	AC060-J50-T22-235	BT50	T22	22	235	24	19,5	M24	6
	AC060-J50-T28-235	BT50	T28	28	235	24	18,75	M24	6,1
	AC060-J50-T28-285	BT50	T28	28	285	24	18,75	M24	7,2

For pull studs for steep tapers, see "Assembly parts and accessories/Steep taper pull studs"

For the tightening torques of screw-fit front pieces, see "Rotating boring bars/adaptors/Assembly parts and accessories"

Application information:

Accure-tec AC001 – vibration-damped adaptors for bore adaption milling cutters

Operating instructions

1.–3. Securing a milling cutter

The Accure-tec adaptors for bore adaption milling cutters feature dynamic passive vibration damping in order to increase the dynamic rigidity of milling tools with a long projection length. They enable higher cutting parameters than conventional bore adaption milling cutter adaptors. For optimal use of Accure-tec adaptors, please ensure you follow the operating instructions below.

Note:

Vibration-damped Accure-tec adaptors for bore adaption milling cutters are instantly ready for use. No adjustments are required.

Please take the following steps for higher cutting parameters and conditions:

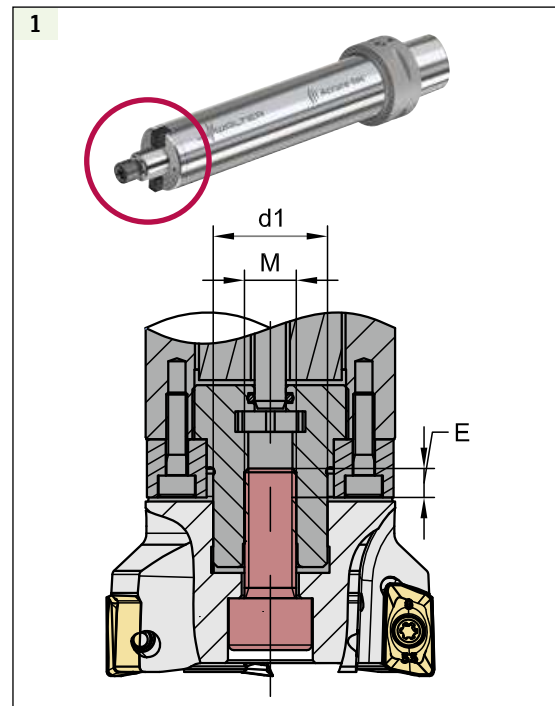
Axial tightening screw with suitable screw length

For optimum clamping, the screw (strength class 12.9) must project out of the milling cutter end face by at least the projection value E specified in Table 2.

Tightening screw torque: See Table 3.

Note:

The Accure-tec bore adaption milling cutter arbors with $d_1 = \text{dia. } 40 \text{ mm}$ feature one central screw and four threaded bores for securing the milling cutter using four screws. When mounting the milling cutter, four suitable fastening screws should be used. These can vary depending on the milling cutter type.



2 Screw protrusion value (E)					
	$\varnothing \text{ mm}$				
d_1	16	22	27	32	40
M	8 mm	10 mm	12 mm	16 mm	20 mm
$E_{\min}$	3 mm	6 mm	8 mm	12 mm	15 mm
$E_{\max}$	4 mm	8 mm	10 mm	16 mm	20 mm

3 Tightening torque					
	$\varnothing \text{ mm}$				
d_1	16	22	27	32	40
Nm	30 Nm	40 Nm	60 Nm	80 Nm	110 Nm

4. Recommended machining parameters

The specified maximum speeds (see Table 4 or label on the adaptor) must not be exceeded.

Machining parameters that are too large can create strong vibration that can reduce the functionality of the damping element. That is why the machining parameters must always be set such that no vibration occurs.

Optimising cutting data, order:

- Cutting speed v_c and feed per tooth f_z :**
Select the starting values depending on the milling cutter and indexable insert (see Walter General Catalogue or Walter GPS tool navigation system).
- Select the maximum depth of cut a_p and cutting width a_e values.**
The width and depth of cut can be increased, bearing in mind the specified recommendations for milling cutters and indexable inserts, so long as no vibration occurs.

Important:

Contrary to the use of conventional bore adaption milling cutter arbors, machining cannot be stabilised by increasing the radial cutting force (e.g. increasing the feed).

4 Maximum speed					
	$\varnothing \text{ mm}$				
d_1	16	22	27	32	40
$n_{\max}$ [rpm]	8 000	8 000	6 000	4 000	3 000

5. Maximum temperature in use

The temperature of use of the Accure-tec adaptor must not exceed the maximum permissible temperature (see Table 5), as this would damage the damping system.

Maximum temperature in use = 80 °C/176 °F

Application information:

Accuretec AC060 – vibration-damped boring bars/adaptors for ScrewFit exchangeable heads

The Accuretec boring bars/adaptors for ScrewFit exchangeable heads feature dynamic passive vibration damping in order to increase the dynamic rigidity of milling tools with a long projection length. They enable higher cutting parameters than conventional boring bars/adaptors with ScrewFit exchangeable heads. For optimal use of Accuretec boring bars/adaptors, please ensure you follow the operating instructions below.

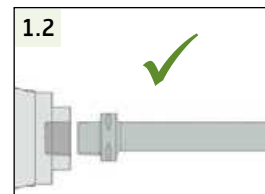
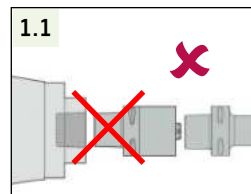
Note: Vibration-damped Accuretec boring bars/adaptors for ScrewFit exchangeable heads are instantly ready for use. No adjustments are required.



1. Installation recommendations

The Accuretec AC060 boring bar/adaptor is a "Plug and Play" system. The integrated damping system is ready for immediate use and is set to provide optimal results.

We strongly recommend that you do not fit any extensions/reducers as this may lead to a loss of the damping effect.



2. Walter ScrewFit exchangeable head system

Due to the high cutting conditions that can be achieved, the ScrewFit exchangeable head must be reliably secured in the Accuretec boring bar/adaptor.

We advise you to use a torque wrench to tighten the ScrewFit exchangeable head to the recommended torque (see Table A below).

A Tightening torque

Connecting thread	T 9	T 14	T 18	T 22	T 28	T 36	T 45
Key size for installation [SW]	8	12	14	17	21	30	36
Tightening torque	Nm	6	25	50	80	150	200
	ft Lb	4	19	37	59	111	148



3. Recommended machining parameters

Make sure that you never exceed the maximum speed of the boring bar/adaptor (specified on the boring bar/adaptor and in Table B below).

B Maximum speed (rpm*)

A Length of the boring bar/adaptor (mm)	≤ 185	> 185 ≤ 235	> 235 ≤ 285
	Max. rpm	10.000	8.000
			6.000

* Depending on the rigidity of the spindle, it may be necessary to reduce the maximum speed specified above. Improper cutting conditions may cause the complete tool to vibrate, which would prevent the damper from working efficiently and may potentially damage the components of the boring bar/adaptor. Adapt the cutting conditions for vibration-free operation.

5. Maximum temperature in use

The temperature of the Accuretec boring bar/adaptor when in use must not exceed the maximum permissible temperature (see Table C), as this would damage the damping system.

C Maximum temperature in use

80 °C / 176 °F

4. Optimisation of the cutting conditions

To optimise the cutting conditions, take the following steps:

1. Cutting speed v_c and feed per tooth f_z :

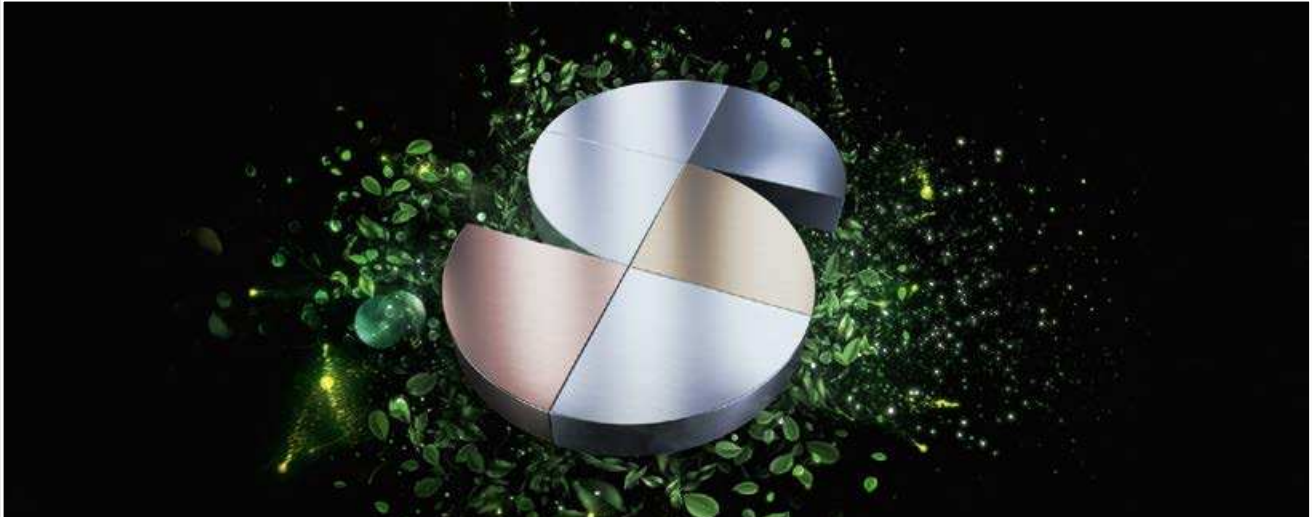
Select the starting values depending on the milling cutter and indexable insert (see Walter General Catalogue or Walter GPS tool navigation system).

2. Select values for maximum depth of cut a_p and cutting width a_e .

The width and depth of cut can be increased, bearing in mind the specified recommendations for milling cutters and indexable inserts, so long as no vibration occurs.

Take care:

In contrast to the use of conventional long boring bars/adaptors, the machining process cannot be stabilised using additional radial forces (e.g. by increasing the feed).



Sustainable products and services – certified and transparent

Walter is a company that takes responsibility for people and the environment. Sustainability is a central component of our corporate strategy. It pervades our products and business divisions and is reviewed and certified by independent third parties on a regular basis.

Proven to be produced to high standards

All processes, procedures, methods and instruments that we use are checked and certified by an independent body according to strict criteria. Occupational health and safety, quality assurance and environmentally friendly actions (for example through resource-saving, energy-efficient and CO₂-offset production) are examples of this. Our social commitment shows that Walter has a broader definition of responsibility.

Transparency throughout the entire process chain – for your peace of mind

The integrated management system at Walter includes the sustainable use of resources and production equipment as well as of people – our customers, partners and employees. So that you can count on all of our products meeting these requirements throughout the entire process chain, we apply our own benchmarks to our suppliers too.

Certification

The integrated management system at Walter includes certification in accordance with:

- ISO 9001 (Quality management)
- VDA 6.4 (Production equipment for the automotive industry)
- ISO 14001 (Environmental management)
- ISO 45001 (Occupational health and safety management)
- ISO 50001 (Energy management)



You can find more information on Walter certification here:



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Walter is continuously improving its products and processes. We ensure our product quality using effective measures and procedures – and check it on a regular basis with our comprehensive quality management system.

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Walter provides you with a wide variety of options.

From the clever Walter Cut DX system with SmartLock, which reduces tool change times by up to 70%, to the SX system for large diameters of up to 200 mm. Walter also offers the multi-talented MX with four cutting edges, and Walter Cut GX, the universal system that can do virtually everything with all materials, through Walter Xpress. In other words: Individually tailor-made special indexable inserts and tools – delivered in just four weeks!

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