

# Rene Swiss Corporation



# **Product Catalog**

Tornos AS 14

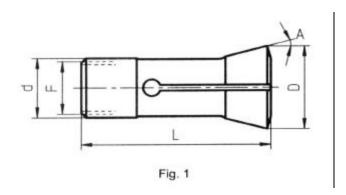
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www.reneswiss.com rachel@reneswiss.com



### Tornos AS 14 - Collets

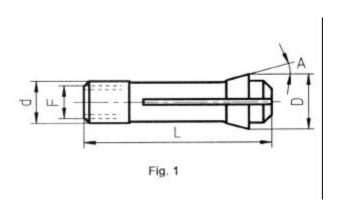


### Clamping

 Maximum Capacity

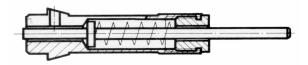
 Reference
 Machine
 Fig.
 d
 D
 L
 A
 F
 ●
 ●
 ■

 9001 E
 AS 14
 1
 25
 35
 75
 16°
 M22x100
 18
 15



#### Pick-up

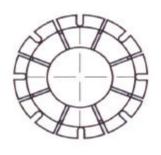
								IVIAX	imum Cap	acity
Reference	Machine	Fig.	d	D	L	Α	F	•	•	
9001 PU	AS 14	1	16	21	66	16°	M14x75	16		

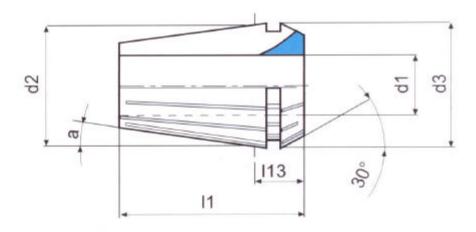


shown with extractor



### Tornos AS 14 - Collets



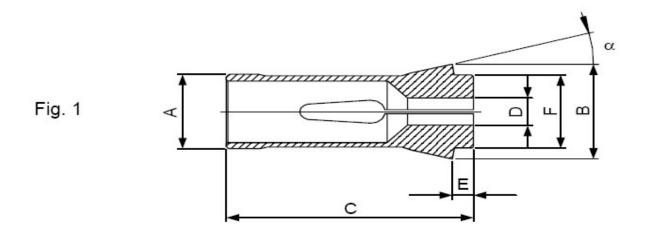


Type	d1 mm min - max	Gripping Range	d2	d3	а	l1	I13 max
ERC8	1 ÷ 5	0.5 mm	8	8.5	8°	13.5	4.5
ERC11	1 ÷ 7	0.5 mm	11	11.5	8°	18	6.6
ERC12	1 ÷ 7	0.5 mm ÷ 1 mm	12	12	8°	19.5	9
ERC16	1 ÷ 10	0.5 mm ÷ 1 mm	16	17	8°	27.5	10.5
ERC20	1 ÷ 13	0.5 mm ÷ 1 mm	20	21	8°	31.5	11.5
ERC25	1 ÷ 16	0.5 mm ÷ 1 mm	25	26	8°	34	12
ERC32	2 ÷ 20	0.5 mm ÷ 1 mm	32	33	8°	40	13

Туре	d1 mm min - max	Gripping Range	d2	d3	а	I1	I13 max
ESX8	1 ÷ 5	0.5 mm	8	8.5	8°	13.5	4.5
ESX11	1 ÷ 7	0.5 mm	11	11.5	8°	18	6.6
ESX12	1 ÷ 7	0.5 mm ÷ 1 mm	12	12	8°	19.5	9
ESX16	1 ÷ 10	0.5 mm ÷ 1 mm	16	17	8°	27.5	10.5
ESX20	1 ÷ 13	0.5 mm ÷ 1 mm	20	21	8°	31.5	11.5
ESX25	1 ÷ 16	0.5 mm ÷ 1 mm	25	26	8°	34	12
ESX32	2 ÷ 20	0.5 mm ÷ 1 mm	32	33	8°	40	13



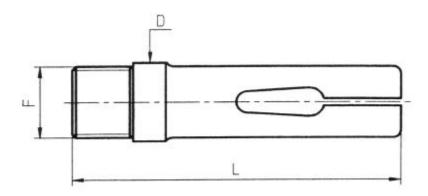
### Tornos AS 14 - Collets



Туре	А	В	С	E	F	а	D min - max
F8	8	12	42	4.5	8	16º	0.3 - 6.35
F8	8	11	19	2	8	15º	0.3 - 6.50



### Tornos AS 14 - Feed Finger



### **Maximum Capacity**

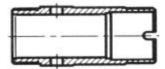
Reference	Machine	D	L	F	•	•	
9251 E	AS 14	17.9	70	M16x75	14	12	
9251 ER	AS 14	18.3	70	M17x75	15	13	

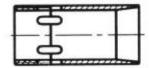


### Tornos AS 14 - Feed Finger

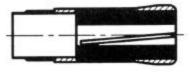
### **Avanstar Feed Fingers**











Body No. 1

Adjusting Sleeve No. 2

Guide No. 4

Feed Pads No. 3

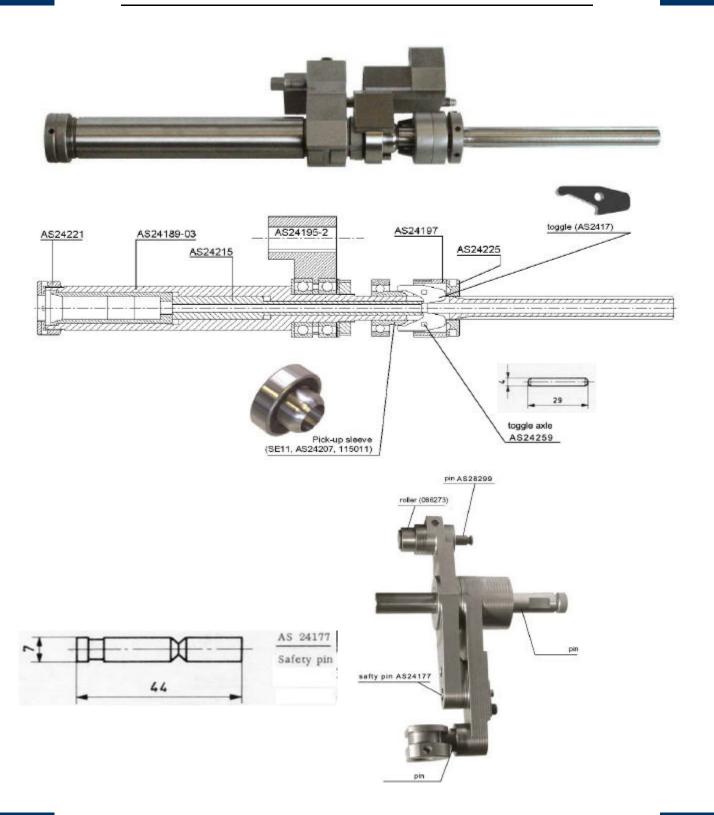
Spring No. 5

Spring No. 6

Reference	Machine	Location	•	•	
9251STNG	AS14	Complete Assembly	10	8	7
9251STNGC		Body No. 1			
9251STNGB		Adjusting Sleeve No. 2			
9251STNGD		Feed Pad No. 3			
9251STNGO		Guide No. 4			
9251STNGR5		Leaf Spring No. 5			
9251STNGR6		Leaf Spring No. 6			

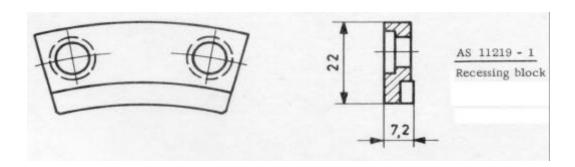


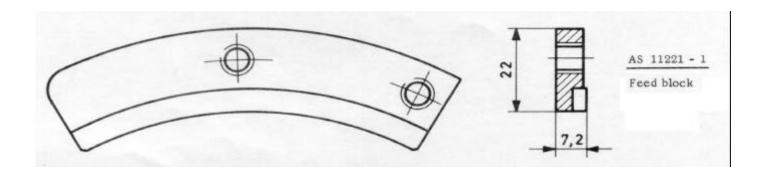
### Tornos AS 14 - Pick off Attachment





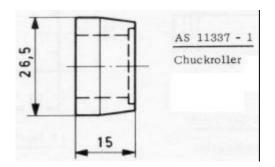
### Tornos AS 14 - Feed

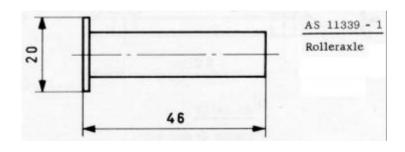






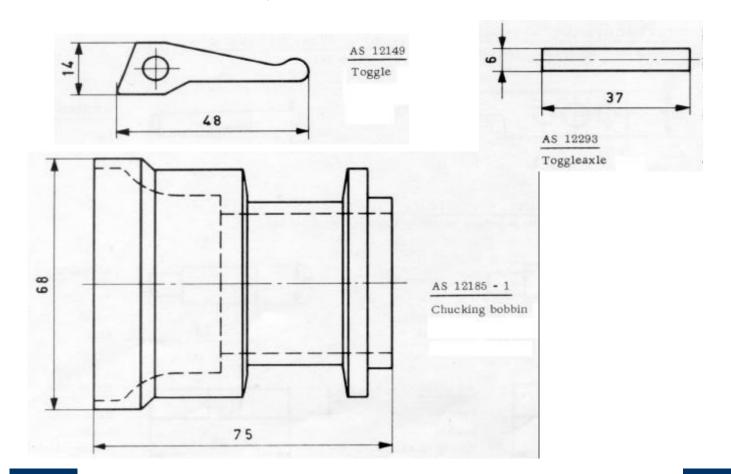
### Tornos AS 14 - Chucking







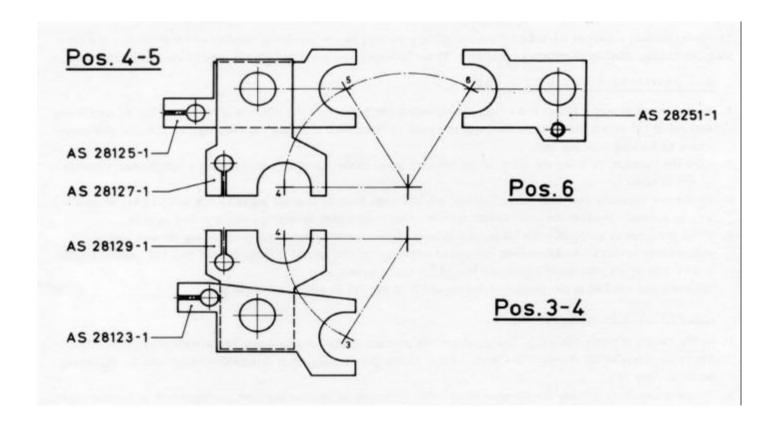
INA Cage Bearing - 778.304





### Tornos AS 14 - Forks

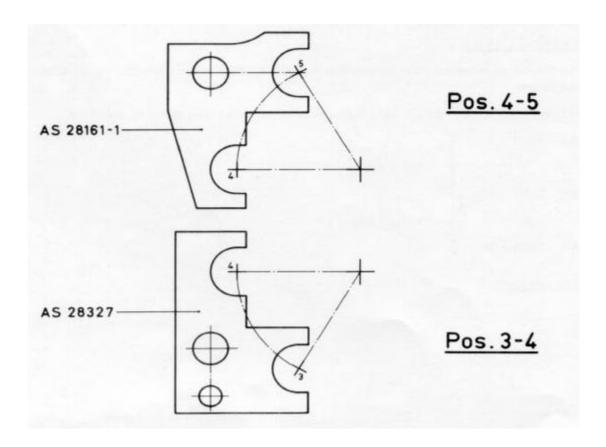
Forks for revolving spindles





### Tornos AS 14 - Forks

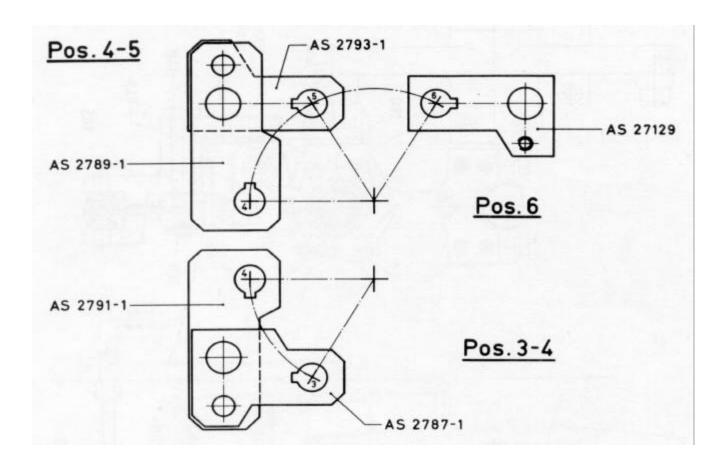
Double forks for revolving spindle





### Tornos AS 14 - Forks

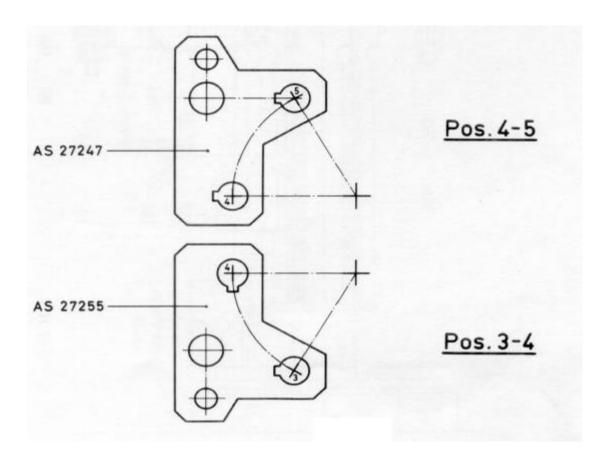
Forks for stationary spindles





### Tornos AS 14 - Forks

Double forks for stationary spindles





### Tornos AS 14 - CAMS

### Central slide cams

AS 1355-0	AS 1355-8	AS 1355-19
AS 1355-3	AS 1355-10	AS 1355-24
AS 1355-4.5	AS 1355-12	AS 1355-30
AS 1355-6	AS 1355-15	AS 1355-35

### Cross slide cams

### Normal cams

AS 14235-0	AS 14235-4
AS 14235-1	AS 14235-5
AS 14235-2	AS 14235-6
AS 14235-3	AS 14235-7.5

### Part-off cams

AS 14235-1c	AS 14235-3c
AS 14235-1.5c	AS 14235-4c
AS 14235-2c	AS 14235-5c
AS 14235-2.5c	AS 14235-6c

#### Knurling cams

AS 14235-1.5M

#### **Shaving cams**

AS 14235-0.6R	AS 14235-3R
AS 14235-1R	AS 14235-6R
AS 14235-2R	AS 14235-12R

### Independent feed cams

Standard With pull out

Special cams made per request



### Tornos AS 14 - CAMS

#### Pick-off attachment cams

### Standard cams (work with acceleration)

These cams can be used for a production of up to 30 parts per min. Their working throw varies between 1 - 3mm on 50 degrees.

AS 24271-1	
AS 24271-2	Maximum length of part = 40mm
AS 24271-3	

For a working throw of more than 3mm, it is necessary to use special cams

#### Special cams (work without acceleration)

All these cams are individually studied. It is however possible, depending on the case, to obtain back drillings up to a depth of 20mm

For cam design, the following indications can be taken into consideration

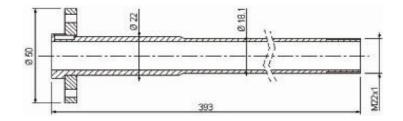
Max production	Working degrees	Length part
20 p/min	150°	40mm
30 p/min	150°	30mm
40 p/min	100°	20mm



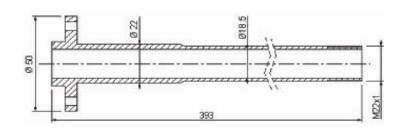
### Tornos AS 14 - Tubes

### Collet tubes





AS 12/10-1 Collet tube



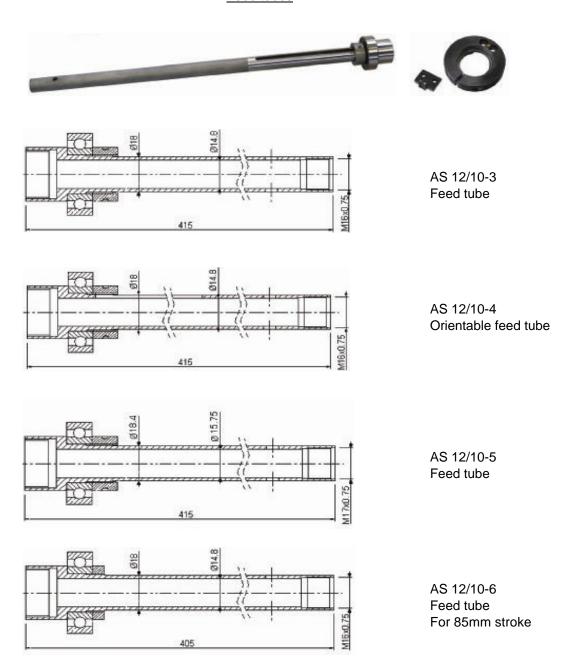
AS 12/10-2 Collet tube

If you are looking for a specific tube that is not listed please contact us



### Tornos AS 14 - Tubes

### Feed tubes



If you are looking for a specific tube that is not listed please contact us



### Tornos AS 14 - Gears

OKNOS MOUTIER SUISSE	TORNOS MOUTIER SUISSE	Suls	S S			Ta	olea	n de	Tableau des vitesses S	ess	Spe	s - Geschv Speed - Chart	Ch	hwir	digi	Geschwindigkeits - Tabelle - Chart	- Ta	pelle			Moteur		AS 1445	₹ ş	T/min U/min RPM
		Accele	Acceleration T/min Schnellgang U/min	T/min U/min	В	49	47	45	43	4	39	37	35	33	31	29 27	7 25	5 23	21	19		-		P./m	P./min avec
770	n O	High	High Speed R.P.M.	X.P.M.	A	19	21	23	25	27	29	31	33	35	37	39 4	1 43	3 45	47	49	1	$\mathfrak{I}($	1/6	Stri	& t/min St/Min. mit
	XXX		3 0,	<del>2</del> 09	nim\U n	.M.9.R a	002	008	006	0001	0911	1300	0901	0991	0981	5320	5670	3000	3200	0000	+++	+ )		180°S bei	180° Schnellgang bei U/Min. P.P.M.with
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	Threading	lug			N/	145	5 165	5 190	0 220	245	280	315	355	400	450	505 57	570 650	0 735	845	975	20	60 2	23 57	6	4,5
ours de broche par filet	A droite	oite	A ga	A gauche	-	125	5 145	5 165	185	210	240	270	300	340	385	435 49	490 5	555 630	725	835	20	60 2	26 54	3,5	5,5
Spindelumdrehg.	Right-Hand	Hand	Left-I	Left-Hand	ST	105	5 120	0 135	155	175	200	225	250	280	320	360 40	405 46	460 520	009	069	20	60 2	29 51	4	6,5
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4	37	33	46	24	B	25	5 85	5 100	EMEROS, IX	130	145	165	185	210	235	265 295	5 340	0 380	440	505	20	90	35 45	5,5	6
. (C	30	3	45	95	-	90 N	5 75	95	100	110	125	140	160	180	200	225 255	5 290	0 330	375	435	20	90	38 42	6,5	10
0	40	30	44	96	09	9	0 70	08	06	100	115	130	145	160	180	205 230	00 260	0 295	340	395	40	40 2	20 60	7,5	11
Detroine			Biicklan		15	200	0 55	5 65	22	85	95	105	120	135	150	170 190	0 212	5 245	280	325	40	40	23 57	8,5	13
Thre		1 - 0	f	,	AU N	1 N	0 45	2 20	09	70	80	06	100	110	125	140 16	160 180	0 205	235	270	40	40	26 54	10	15
Tours de broche	A droite	oite		A gauche		35	5 40	0 45	20 9	55	9	75	85	95	105	120 18	135 155	5, 175	200	230	40	40	29 51	11,5	18
Spindelumdrehg.		hts	ii .	links	315	SN	30 35	5 40	45	20	55	65	70	80	06	100 115	5570 F	130 150	170	195	40	40	32 48	13	21
pro Gewinde		Right-Hand	Left	Left-Hand	NC	10	30	0 35	5 40	45	20	55	09	70	80	90 110	100 110	0 125	145	170	40	40	35 45	15	23
per Thread	5	D2	5	D2	RC	IIO		30	33	37	42	47	53	90	29	75 8	85	95 110	125	145	40	40	38 42	17	26
2	48	22	30	40	SE:	170				30	34	38	43	48	55	62 7	9 02	80 90	100	120	40	40	42 38	50	30
. 4	46	24	37	33	IDE	) \ :					30	33	37	42	47	53	09	67 75	. 88	100	40	40	45 35	22	34
					SS	KE						28	32	36	40	45	50	58 66	75	87	40	40	48 32	25	38
Perceur tournant - Schnellbohrspindel	ant - Sc	shnellbe	ohrspin	leb		37							27	30	34	39	44	50 56	85	75	40	40	51 29	28	42
Viscos de percesa e Vitassa de brocha y	N = obe	do fill	de broc	6x ad	ND	ICIN									29	33	37	42 48	55	63	40	40	54 26	31	47
Bohrgeschwindigkeit = Spindelgeschw.x2	igkeit =	Spinde	elgesch	w. x2	lld	NId					7					27	31	35 40	46	53	40	40	57 23	34	52
Drilling Speed = Spindle Speed x2	ed = Sc	sindle S	x peed x	2		S												29 33	38	43	40	40	60 20	38	58



9

40

30

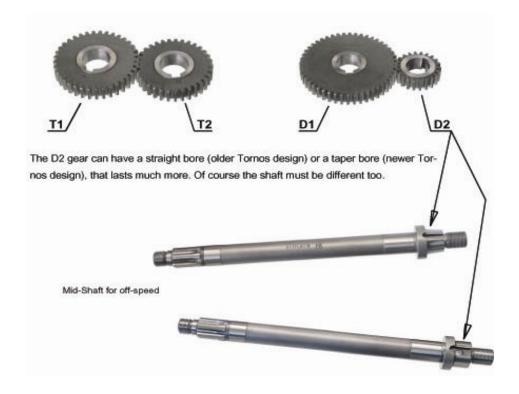
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### **Rene Swiss Corporation**

### Tornos AS 14 - Gears

		In speed					Off speed		
ratio	riç	ght	le	eft	ratio	riç	ght	le	eft
	T1	T2	T1	T2		D1	D2	D1	D2
2	30	40	48	22	2	48	22	30	40
4	37	33	46	24	4	46	24	37	33
6	39	31	45	25			<del>-</del>	<del>-</del>	<del>-</del>

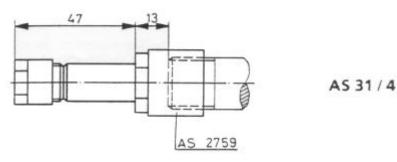
26



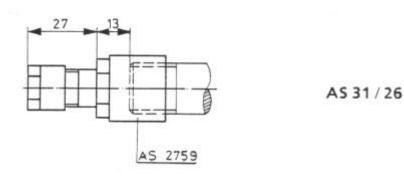
Threading		gears		Threading		gears	
off ration		Z	Ref. No.	ration		Z	Ref. No.
	D1	48	AS 26219		T1	39	AS 26325
2	D2	22	AS 26221	6	T2	31	AS 26327
	D1	30	AS 26383	O	T1	45	AS 26413
	D2	40	AS 26381		T2	25	AS 26415
	T1-D1	37	AS 26329		T1	40	AS 26215
4	T2-D2	33	AS 26331	9	T2	30	AS 26217
4	T1-D1	46	AS 26379	9	T1	44	AS 26333
	T2-D2	24	AS 26377		T2	26	AS 26335



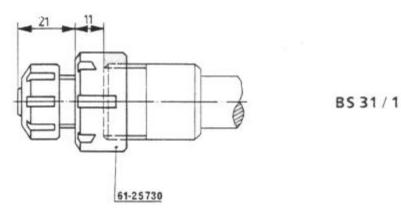
### Tornos AS 14 - Spindle Extension



E16 - F8 Extension



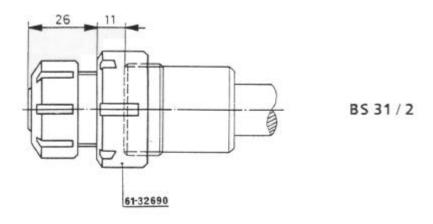
E16 - F8 Extension



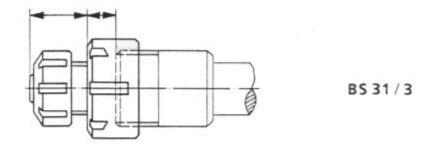
E25 - E16 Reduction



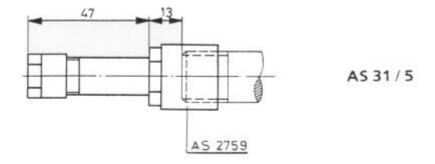
### Tornos AS 14 - Spindle Extension



E32 - E25 Reduction

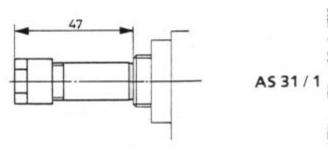


E25 - E20 Reduction

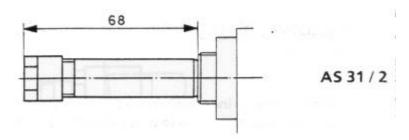




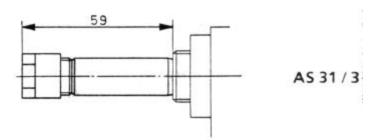
### Tornos AS 14 - Spindle Extension



W12 - F8 Extension



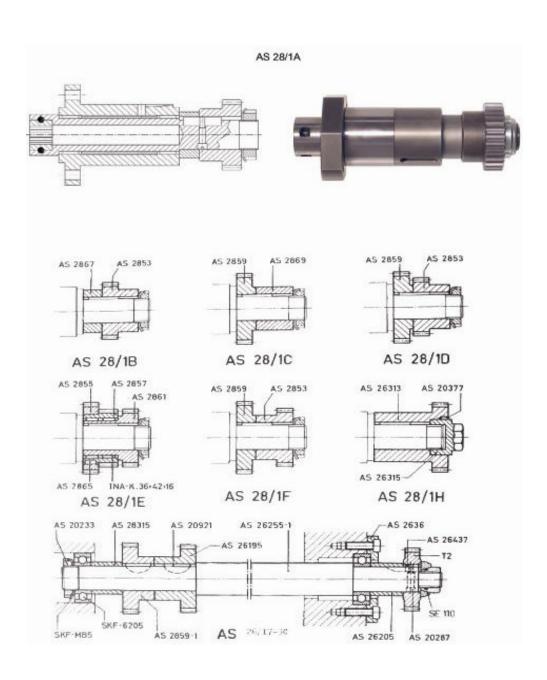
W12 - F8 Extension



W12 - F8 Floating extension

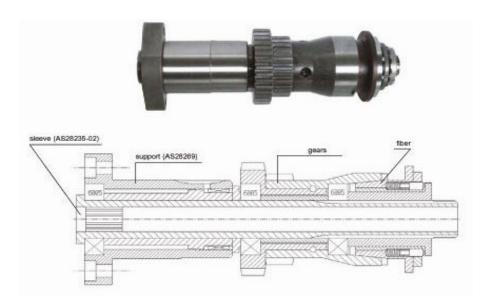


### Tornos AS 14 - Equipment





### Tornos AS 14 - Equipment



### AS 28/26

#### Driving quill with stopping device

This driving unit is designed to stop the rotaition of the pick-up spindle just before the expulsion of the component, in order to avoid any damage to the same component. Otherwise it could hit a part of the machine at a very high speed. This is possible thanks to a mechanical fiber clutch that dissconnects the driving and allows the brake to stop the spindle.



### Tornos AS 14 - Equipment



Independent non-rotating spindle

AS 27/8 For use with ESX/ERC 16 collet

AS 27/8 For use with ESX/ERC 25 collet Pos. 3-4-5-6

AS 27/8 For use with ESX/ERC 32 collet

AS 27/36 For use with ER 16 collet Pos. 1-2





Fixed drill holder

AS 27/3 For use with W12 collet

AS 27/26 For use with ESX/ERC 16 collet AS 27/3-1 For use with ESX/ERC 25 collet

Pos. 1-2-3-4-5-6



### Tornos AS 14 - Spare Part Break Down

Slides			Feed + Chu	cking	
Part Number	QTY	Description	Part Number	QTY	Description
AS 1311	3	Axle	AS 11219-1	3	Axle
AS 1365	5	Roller	AS 11221-1	5	Roller
AS 11201	1	Axle	AS 11337-1	1	Axle
AS 11315	1	Axle	AS 11339-1	1	Axle
			778.304	2	Needles cage
					INA K12 x 17 x 13
Indexing			<u>Slides</u>		
Part Number	QTY	Description	Part Number	QTY	Description
AS 11363	1	Axle	AS 14171-2	6	Axle
AS 11365	1	Roller	AS 14211	2	Cap
			AS 14213	2	Knee cap
			AS 14217	4	Return plate
			AS 14269	6	Roller
				2	Spring

### Barrel

Part Number	QTY	Description
AS 12149	18	6 sets of Toggles
AS 12185-1	6	Chucking bobbin
AS 12293	18	Toggle axle
AS 12289	234	Needles
7007CVDUJ84	12	Front bearing
7206CG1DUJ84	12	Rear bearing



### Tornos AS 14 - Spare Part Break Down

Disengaging	<u>Device</u>		Clutch		
Part Number AS 20851 AS 20859	QTY 1 1	Description Beak Beak	Part Number AS 20215 AS 20603-1 AS 20605 AS 201233	QTY 2 2 2 2 6	Description Sliding block Axle Axle Sliding block Toggles for coupling
<u>Clutch</u>			Pick-off atta	chment A	
Part Number AS 20603-2 AS 20605-1 AS 201163-1 AS 201233	QTY 2 2 2 2 2	Description  Axle  Axle  Sliding block  Sliding block	Part Number AS 1365 AS 2417 AS 24177 AS 24207 AS 24257 AS 24259 AS 28299	QTY  1 2 2 1 1 2 1 2 2	Description  Roller Toggle Safety pin Gripping bobbin Roller Toggle axle Roller axle Bearings INA NK 8/12 SNR Bearing 6004EEDBJ75
Independate	e feed AS 2	8/2 - 28/3 - 28/7	Stock stop A	AS 28/4	
Part Number AS 1365 AS 2881 AS 28299	QTY 1 1 1	Description Roller Roller axle Roller axle	Part Number AS 1311 AS 1365	QTY 1 1	Description Roller axle Roller
Quill with sto	opping devi	ce AS 28/13	Swing stop /	AS 29/2	
Part Number AS 14269 AS 28245	QTY 1 1	Description Roller Roller axle	Part Number AS 14171-2 AS 14269 AS 29173	QTY 1 2 1	Description Roller axle Roller Roller axle



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