

TR25NOX

Tiltrotator

Experience and innovation have led to one of the most advanced tools for excavators – the **NOX Tiltrotator**: continuous 360° rotation and a tilting angle of 2 x 50° make it a universal joint. Combined with quick change system and various attachments this means highest efficiency at any construction site. The **NOX Tiltrotator** range is optimally engineered to suit excavators with an operating weight from 18t / 39600 lbs to 25t / 55000 lbs.



Advantages:

- **Precision and safety** due to „smooth“ proportional control (optional).
- **High stability and long service life** thanks to special cast housing.
- **Low overall height** thanks to elliptic rotary actuator: large travel.
- **High and constant tilt force** due to cylinderless rotary actuator.
- **No protruding parts**: excavation with narrow bucket possible in small, deep canals, even under or in between existing tubes.
- **Low maintenance**: worm drive lubricated permanently (grease).
- **Option**: High-flow swivel up to 30 MPa / 4320 psi or electric swivel.

Tiltrotator Type		TR25NOX		
	unit	DF10	DF4	CSP
Machine size	t/lbs		18 - 25 / 39600 - 55000	
Breaking force max. (ISO)	kN/lbf		170 / 37400	
Bucket width max.	mm/in		2000 / 78.7	
Weight (from) ¹⁾	kg/lbs		780 / 1716	
Width A ¹⁾	mm/in		260 / 10.2	
Length B ¹⁾	mm/in		760 / 29.9	
Height C ¹⁾	mm/in		650 / 25.6	
Tilt angle	°		2 x 50	
Tilt torque	Nm/ft.lbs		44000 / 32450	
Rotation speed	1/min		8,5 at 60 l/min / 15.9 GPM	
Rotation torque	Nm/ft.lbs		8000 / 5900 constant at 360° continuous	
Oil flow extra function 1/2 max.	l/min / GPM	SD ²⁾ : 70/40 / 18.5/10.6 HF ³⁾ : 70/150 / 18.5/39.6	SD ²⁾ : 70/40 / 18.5/10.6	SD ²⁾ : 70/40 / 18.5/10.6 HF ³⁾ : 70/150 / 18.5/39.6
Hydraulic pressure max.	MPa/psi	rotation: 20 / 2880 tilt: 30 / 4320	rotation: 20 / 2880 tilt: 30 / 4320	tilt: 30 / 4320
Recommended pressure in return line	MPa/psi		2,5 / 360	
Number of swivel channels extra function	number		4	
Number of swivel channels quick coupler	number		2	
Number of channels separate drain line	number		1	
Electric swivel (optional)	channels x A		12 x 0,5	

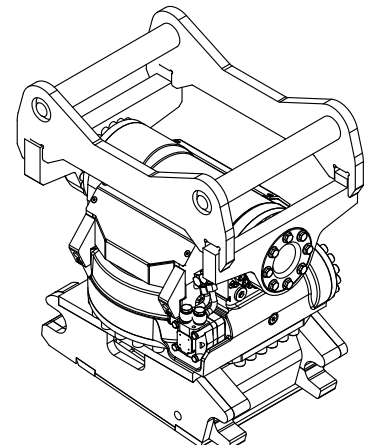
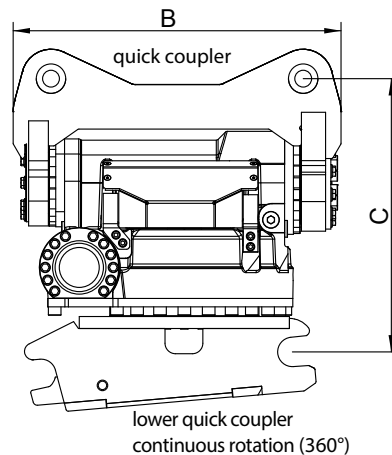
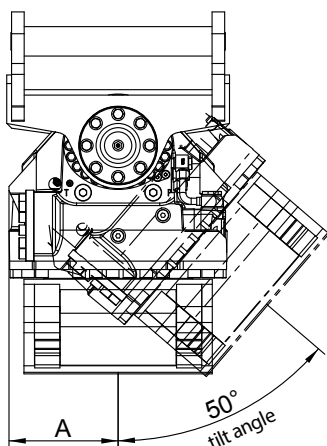
¹⁾ reference: TR25NOX S70/S70 ²⁾ SD = Standard-swivel ³⁾ HF = High-Flow-swivel

Controls

Type	Description
CSP ⁴⁾	SVAB RT controller, tilt and rotation are controlled by proportional solenoid valves and can be run simultaneously, extra function and SVAB quick coupler are controlled by on/off valves
CSP ⁴⁾	NOXPROP controller, tilt, rotation and extra function are controlled by proportional solenoid valves and can be run simultaneously, quick coupler is controlled by on/off valves, separate display module, easy and fast installation
DF4 ⁵⁾ *	- tilt function, extra 1 (extra 2 as an option) and quick-coupler are controlled by changing over between the functions of circuit 1 - rotation function is controlled by circuit 2
DF10 ⁶⁾	for each function (rotate, tilt, quick change, extra 1, extra 2) separate double acting hydraulic circuit on excavator dipper

* two hydraulic circuits needed; ⁴⁾ installation of **KINSHOFER** comfort control ⁵⁾ installation of control; original joysticks remain ⁶⁾ original excavator control remains

Control System CSP consists of: controlbox, 2 joystick grips, wiring from joysticks to Tiltrotator, proportional pressure control valve, display



total height depending on mounted adapters

Attachments / Sets / Mounting Options

TR25NOX

Especially adapted to the TR25NOX, there are different attachments and sets available.

Below you will find a set of the most common buckets used on the TR25NOX as well as the different available mounting options.

In combination with the **NOX** Tiltrotator, a large variety of possibilities is provided to make your carrier machine work more efficiently - in more than 3 dimensions ...

Find different tool examples on the last pages.
For more possible tool combinations, please see our catalogs

- ① CONSTRUCTION - GENERAL CONSTRUCTION
- ② CONSTRUCTION - LANDSCAPING & SNOW REMOVAL

Gripper

- Always mounted to the tiltrotator, no dismantling necessary when working with other attachments.
- For handling posts, tubes, pallets, rocks, sewer cover, etc.



Bucket Set includes

- SKP Grading Bucket cleans up and shapes sites.
- SKD Backhoe Bucket for trenching.
- SKK Trench Bucket for narrow cable channels.

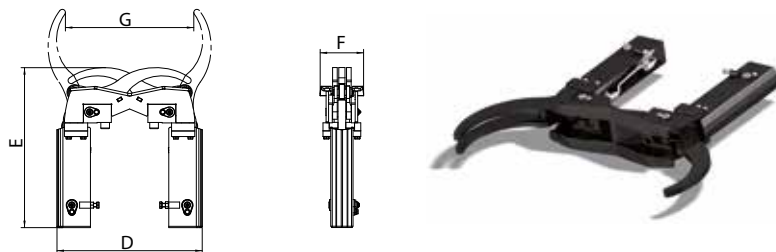


Gripper

Type	Lower quick coupler	Self weight (approx. kg/lbs)	Dimensions D x E x F (mm/in)	max. Opening width G (mm/in)	Closing time ¹⁾ (sec.)	Closing force (kN/lbf)	Load capacity (kg/lbs)
TRG18	S60	113 / 249	470 x 515 x 140 / 18.50 x 20.28 x 5.51	713 / 28.07	1.7	18 / 3960	900 / 1980
TRG25	S70	195 / 429	895 x 760 x 295 / 35.2 x 29.9 x 11.6	1100 / 43.31	2,0	19,5 / 4290	1400 / 3080

¹⁾ at 25 l/min. / 6.61 GPM

Technical Drawing



Bucket Set including SKP 24 / SKD 22 / SKK 22

Type	Self weight (approx. kg/lbs)	Width (mm/in)	Volume (litre/c.y.)	with Quick change adapter
SKP 24 Grading Bucket	600 / 1322	1800 / 70.86	1200 / 1.57	S70
SKD 22 Backhoe Bucket (incl. teeth)	850 / 1874	1000 / 39.36	1095 / 1.43	S70
SKK 22 Trench Bucket	310 / 684	500 / 19.68	375 / 0.49	S70

Tiltrotator TR25NOX Mounting Options

Type	Upper bracket	Lower quick coupler
S-Coupler S-Lock	direct mount or S60	S60
S-Coupler S-Lock	direct mount or S70	S70
Oilquick	direct mount or OQ70	OQ70
Oilquick	direct mount or OQ70/55	OQ70-55
Volvo / Bofors	direct mount or S1/NTP10/B20	S1/NTP10/B20
Volvo / Bofors	direct mount or S2/NTP20/B27	S2/NTP20/B27
Kinshofer L-Lock	direct mount or KSW21	KMS21
Kinshofer L-Lock	direct mount or KSW21	KHS21
Kinshofer X-Lock	direct mount or CMX	CMX
Verachttert	direct mount or CW20/CW30/CW40	CW20/CW30/CW40
Martin	direct mount or MH18/MH20	MH18/MH20
Liebherr	direct mount or SW33	SW33
Liebherr	direct mount or SW48	SW48