

**AMI AXXIS® COUPLERS**

# AXXIS®

**TR TILTROTATOR**

**TC TILT COUPLER**



[www.amiattachments.com](http://www.amiattachments.com)

**AMI** **20**  
ATTACHMENTS YEARS  
EST. 2001



# A NEW SPIN ON TILTROTATORS



## TILTROTATOR

# AXXIS<sup>®</sup> TR

## ±50° TILT 360° ROTATION 0 CYLINDERS

Offering the largest tilt range available and the most compact design in the industry, the AMI AXXIS<sup>®</sup> Tiltrotator, puts a new spin on productivity. The AXXIS<sup>®</sup> Tiltrotator provides unparalleled dexterity for bucket movement that increases jobsite production with less machine repositioning and less support staff required.

Combining 360° rotation with 100° tilt range, the AXXIS<sup>®</sup> TR gives operators the ability to dig, shape and grade with precision, agility and speed.



CONSTRUCTION



LANDSCAPING



UTILITIES



HIGHWAY



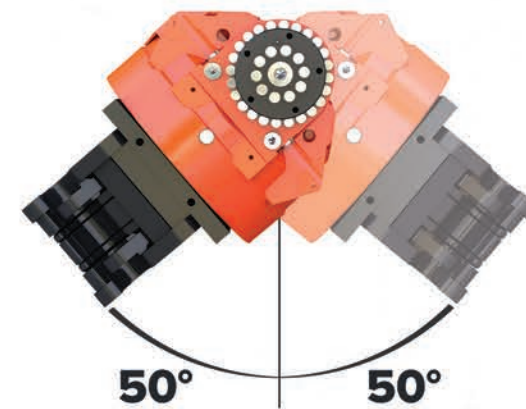
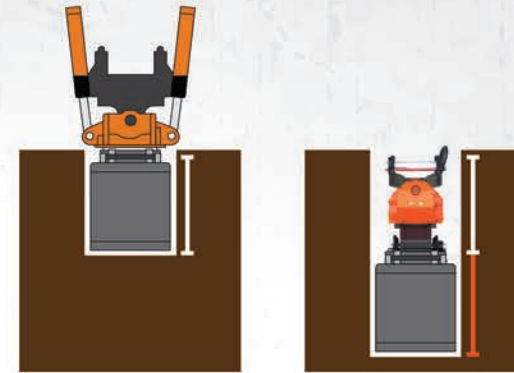
RAIL



COMMUNICATIONS

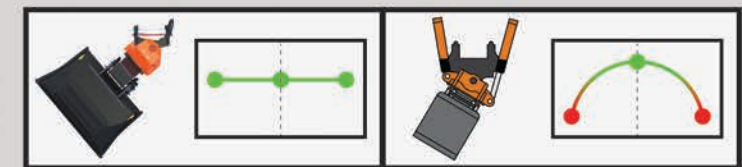
## NO CYLINDERS. NO PROBLEMS.

Instead of tilting with cylinders, the AXXIS<sup>®</sup> TR features a helical actuator. This fully enclosed system eliminates exposed cylinders that are at risk of being damaged. The compact design also reduces the width of the tiltrotator, allowing it to dig narrower trenches without obstruction.



### ±50° TILTING

Work all the angles with the industries' widest tilting range available, up to 50-degrees in both directions.

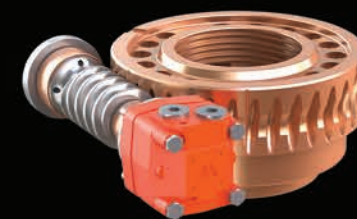


Consistent torque across tilt range.

Torque loss at stroke ends.

### HOLDING TORQUE

Inside the helical actuator are a series of splined shafts which deliver consistent and strong holding torque across the entire tilt range. Compared to cylinders, which diminish in torque at the ends of the stroke, the AXXIS<sup>®</sup> TR maintains holding torque at any angle.



### OVERSIZE WORM GEAR

- Oil Bath Lubrication
- Compact Motor Drive
- High-Flow Swivel Available



### CAST IRON HOUSING

- Integrated Hydraulic Lines
- Only 2 Grease Points



### PROPORTIONAL VALVES

- High Tolerance Against Dirt
- Fast Operation



# NOXPROP+

## PROPORTIONAL CONTROL SYSTEM

Operate with precision using proportional control on both the tilt and rotate functions of the AXXIS® TR. The NOXprop+ proportional control system features a large and bright touch display for easy set-up and active monitoring of precise bucket position. The NOXprop+ system only requires a single one-way hydraulic circuit, yet achieves proportional control on all functions.



### TOUCH DISPLAY

The rugged-built display illuminates for all-day visibility and mounts using an adjustable arm for ergonomic positioning.

### BUCKET POSITION INDICATOR

Visually see the degree of tilt and rotation of your attachment at all times.

### AUTO CALIBRATION

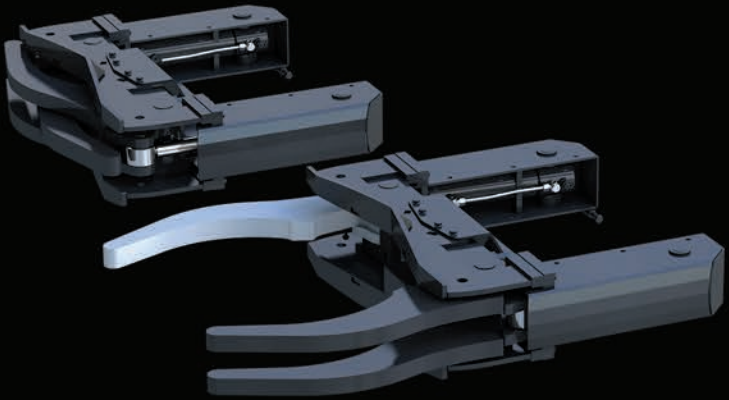
Easily recalibrate tilt and rotation positioning.

### ATTACHMENT PROFILES

Each attachment features its own profile for accurate positioning data.

## OPTION INTEGRATED GRIPPER

For full multi-tasking, the available hydraulic gripper adds an extra set of tines for on-the-fly picking and sorting of cables, pipes and objects. Nestled below the rotate function, the hydraulic grabber is compact and out of the way when not in use.



## LOWER COUPLERS



HYDRAULIC PIN GRAB



HYDRAULIC WEDGE



HYDRAULIC S-LOCK

## ERGONOMIC JOYSTICKS

To support the additional controls of the tiltrotator, the AXXIS® TR includes two SVAB brand L8 ergonomic joysticks. At your control are individual proportional roller switches for careful refined movements or quick actions.



Different joystick configuration are available to match the excavator and operators needs.

## GPS COMPATIBLE

Connect the tilt and rotate functions directly to your GPS control system with the available NOXGeo upgrade. This system works with both 2D / 3D applications provided by most GPS manufacturers.



## TOP MOUNTS

AXXIS® can be connected using a standard hydraulic coupler for easy removal of the tiltrotator when not required.







DIRECT



SANDWICH

## SPECIFICATIONS

											
		TR07NOX		TR11NOX		TR14NOX		TR19NOX		TR25NOX	
Tilt Angle	°	2 x 50°		2 x 50°		2 x 50°		2 x 50°		2 x 50°	
Weight	lbs	440		705		1070		1280		1895	
Tilt Torque (Constant)	lbft (Nm)	7,375 (10,000)		11,800 (16,000)		19,175 (26,000)		25,077 (34,000)		32,450 lbft (44,000)	
Rotational Speed	GPM (lpm)	8.5 @ 8.5 (8.5 @ 32)		8.5 @ 10.6 (8.5 @ 40)		8.5 @ 11.9 (8.5 @ 45)		8.5 @ 13.2 (8.5 @ 50)		8.5 @ 16 (8.5 @ 60)	
Rotational Torque	lbft (Nm)	3390 @ 360° continuous (4600 @ 360° continuous)		4720 @ 360° continuous (6400 @ 360° continuous)		4425 @ 360° continuous (6000 @ 360° continuous)		5160 @ 360° continuous (7000 @ 360° continuous)		6270 @ 360° continuous (8500 @ 360° continuous)	
Max. Hydraulic Pressure	psi (Mpa)	3625 (25)		3916 (27)		4350 (30)		4350 (30)		4350 (30)	
Tilt Flow	GPM (lpm)	6 (20)		8 (29)		12 (45)		15 (58)		20 (77)	
Rotate Flow	GPM (lpm)	8 (29)		11 (41)		12 (45)		13 (50)		15 (56)	
Extra Function #1 MAX. Flow	GPM (lpm)	SD 18 (70)	HF -	SD 18 (70)	HF -	SD 18 (70)	HF -	SD 18 (70)	HF -	SD 18 (70)	HF -
Extra Function #2 MAX. Flow	GPM (lpm)	SD 8 (30)	HF -	SD 8 (30)	HF -	SD 8 (30)	HF 32 (120)	SD 8 (30)	HF 32 (120)	SD 8 (30)	HF 34 (130)
Total Required Flow		Total Sum of Instantaneous Flow Demands		Total Sum of Instantaneous Flow Demands		Total Sum of Instantaneous Flow Demands		Total Sum of Instantaneous Flow Demands		Total Sum of Instantaneous Flow Demands	
Electrical Swivel		Optional		Optional		Optional		Optional		Optional	



## TILT COUPLER



## PRODUCTIVITY & PROTECTION AT EVERY ANGLE

With the AMI AXXIS® TC, you can now perform work on the job site faster, safer and easier by positioning your bucket, not your machine. Featuring versatile bucket positioning up to 180°, the AMI AXXIS® TC features exclusive sliding spline technology and front and rear safety locks. Operated entirely from the cab, the AXXIS® TC also features a safe release curl to open, variable pin centre design and fast and easy connection and disconnection of your attachments - improving your overall productivity.

### UP TO 180° TILT RANGE

Instead of moving your entire machine, the AXXIS® TC allows bucket or attachment tilting up to 180°.

### IMPROVED HOLDING FORCE

Lock on and go! With a dual pin locking system, the AXXIS® TC allows for improved holding force and increased safety.

### REDUCED WEIGHT

Because the AXXIS® TC weighs less, you can achieve greater stability and improved fuel savings.

### INTEGRATED CROSS-PORT RELIEF VALVE

The cross-port relief valve on the AXXIS® TC offers hydraulic overload protection.

### AXXIS® TC CONFIGURATIONS:



Power Tilt Mechanical Wedge Coupler



Power Tilt Hydraulic Wedge Coupler



Power Tilt Mechanical Pin Grab Coupler

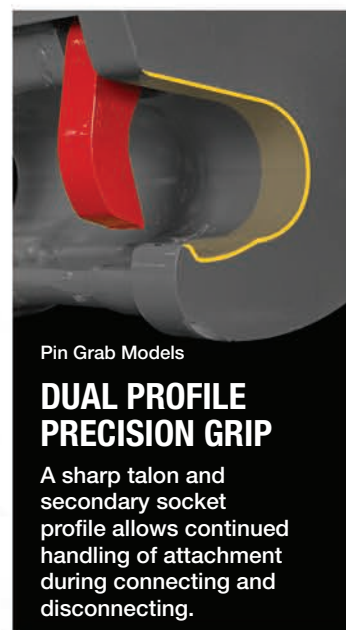
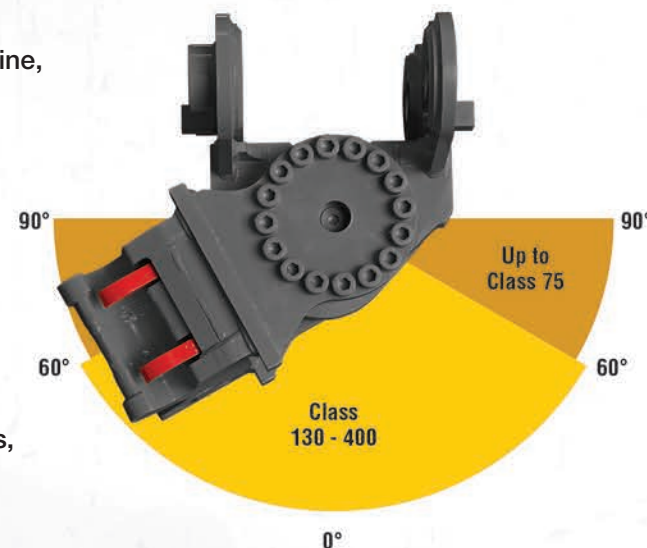
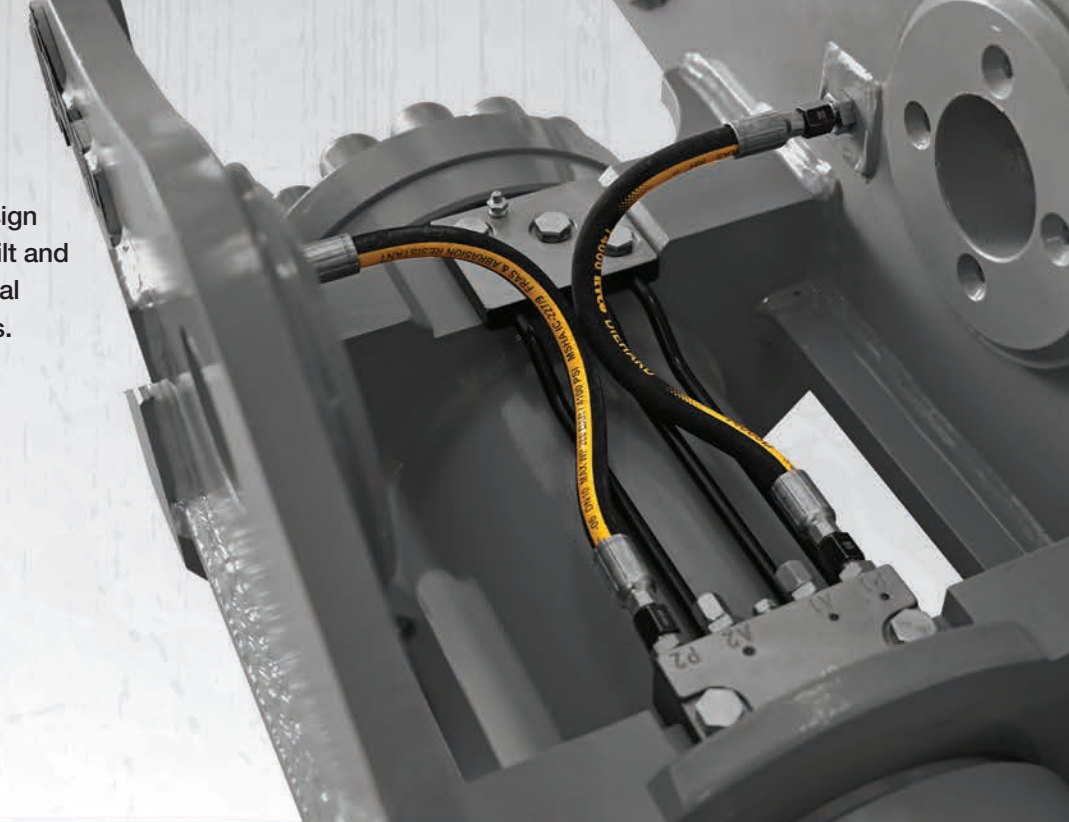


Power Tilt Hydraulic Pin Grab Coupler



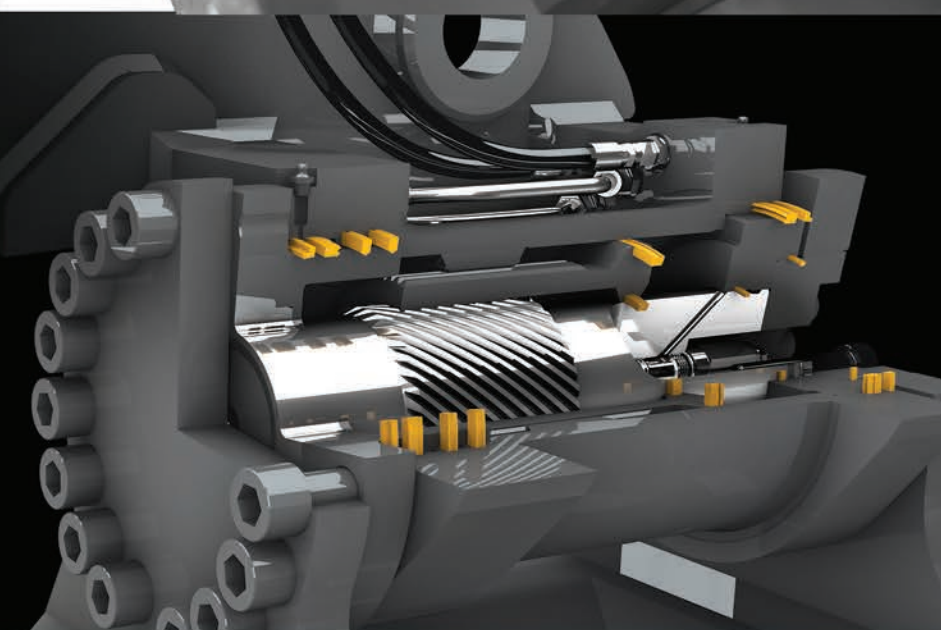
## SIMPLIFIED COUPLER HOSE ROUTING

Compact and minimal hydraulic flow design protect the few hoses required for both tilt and coupling functions. Steel lines and internal routing eliminate exposed external hoses.



## HARDENED STEEL SEALS AND BEARING SURFACES

Thrust and radial bearing surfaces for the AXXIS® TC are hardened steel on hardened steel, eliminating the need for bearing replacement. This also leads to longer coupler life and reduced cost of ownership.



## FIVE SAFETY CHECKS ON HYDRAULIC COUPLERS



### 2-STAGE IN-CAB CONTROLS

Easy to use and designed to prevent unintentional release, the in-cab controls require two unique actions to activate the hydraulic coupler's unlocking sequence.



### SAFE BUCKET POSITION REQUIRED

At full curl, the bucket is now safely resting in the coupler's front clip without risk of falling off unexpectedly.



### CONSTANT PRESSURE & LOAD HOLDING VALVE

Dedicated lines provide constant pressure directly to the coupler's locking cylinder. Integrated into the locking cylinder is a load holding valve that keeps the attachment locked tightly to the coupler.



### MECHANICAL SAFETY LOCK

Using a spring-loaded hydraulic cylinder, the safety naturally stays in the locked position and requires hydraulic pressure to deactivate.



## TILTROTATOR ATTACHMENTS



Trapezoid Bucket – BOE



Non-Rotating 3-Point  
Rock Grapple



Cable Bucket



Jawbone Bucket



Tiltrotator Style  
Ditching Bucket



Non-Rotating  
Multi-Purpose Grapple



Fork Rack



Grading Beam



AMI Attachments is a certified member of the Hardox in my Body® program. This strict accreditation means that we provide our customers with buckets manufactured from genuine wear-resistant steel that sets the standard worldwide for being harder, tougher and lighter.



In the quest for stronger and lighter products, AMI Attachments relies on Strenx® high-performance structural steel. Working with Strenx® steel makes our attachments stronger, lighter, safer, more competitive and more sustainable.

### Authorized Dealer



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