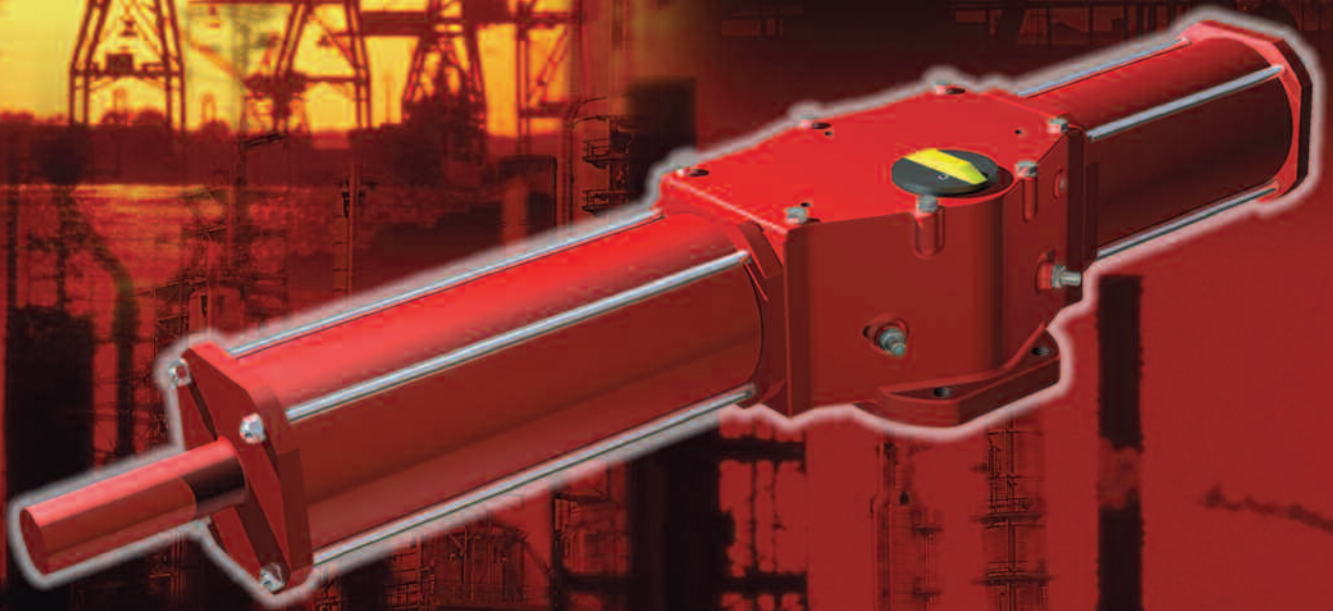


T R U T O R Q



**HD**TYPE  
ACTUATORS

# HD TYPE ACTUATORS

**Namur:**  
Namur topworks for industry standard mounting of switches, sensors, positioners and other monitoring devices.

**Lifting:**  
Three Lifting Eyes for safe actuator handling during shipping, installation and handling.

**Stop Adjustments:**  
Bi-directional dual stop end adjustments allowing for adjustment from 80 to 100 degrees. Integral to the Yoke Module and not subject to pressurized areas allowing for safe operation.

**Sealing & Movement:**  
Twin opposing piston seals dramatically decreasing the possibility of leakage with a central bearing allowing for smooth and secure operation.

**Cylinders:**  
Cylinders constructed from seamless drawn steel pipe.

**Pistons:**  
Machined from solid steel.

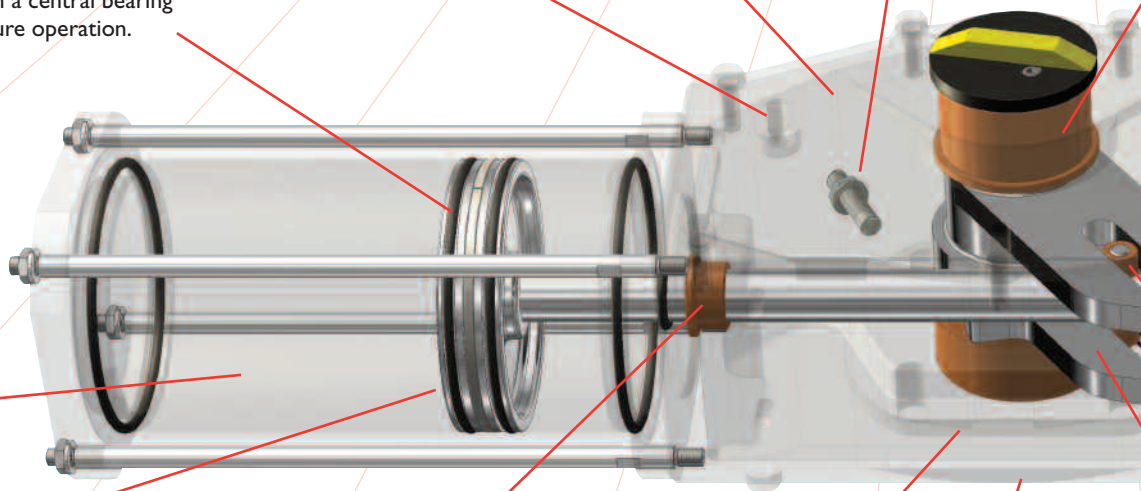
**Yoke Module Bearings:**  
Replaceable self-lubricating bronze bearings to absorb any adverse load to ensure smooth operation, extended operating life and improved piston rod alignment.

**Actuator Valve Mounting Interface:**  
Female drive with keyed connection allowing multiple connection and orientation styles when requested.

**Yoke Module:**  
Modular design allowing for variable actuator executions (twin piston DA, hydraulic, spring return etc.) and increasing inventory flexibility by stocking fewer necessary parts. Yoke module incorporates a breather preventing pressure build-up.

## ■ HD-TYPE units available

Double acting	Spring return
HD60DA	HD60SR
HD120DA	HD120SR
HD140DA	HD140SR
HD190DA	HD190SR
HD280DA	HD280SR
HD300DA	HD300SR
HD600DA	HD600SR



**Yoke Bearings:**  
Top and bottom replaceable self-lubricating bronze bearings to absorb any adverse load to ensure smooth operation, extended operating life and improved yoke alignment.

**Piston Rod:**  
Single piece piston rod machined from solid steel for added strength and durability.

**Spring Packs:**  
Encapsulated spring packs allowing for safe and easy handling located and recessed into actuator piston producing linear and even force throughout the complete movement.

**Yoke Mechanism:**  
Enclosed yoke mechanism allowing for secure fault-free operation in-corporating a hardened steel pin with active steel roller bearings.

**Yoke:**  
Single piece precision die-cast yoke design, ensuring accurate and smooth operation allowing for increased durability and long life operation.

**Tie Bars:**  
Four external tie bars made from stainless steel allowing for secure connection of end-cap and piston assemblies.

**Spring Modules:**  
Pre-loaded spring modules incorporating the Spring Packs allowing safe handling, assembly and maintenance.

■ **HD-TYPE Torque Range @ 6 BARg**

DOUBLE ACTING = 601 - 6066 Nm (max torque)  
DOUBLE ACTING = 361 - 3669 Nm (min torque)

SPRING RETURN = 385 - 1941 Nm (Start of Spring)  
SPRING RETURN = 182 - 1834 Nm (min torque)  
SPRING RETURN = 217 - 2184 Nm (End of Spring)

■ **HD-TYPE Torque Range @ 80 PSIG**

DOUBLE ACTING = 4876 - 49216 in.lbs (max torque)  
DOUBLE ACTING = 2929 - 29768 in.lbs (min torque)

SPRING RETURN = 3124 - 15748 in.lbs (Start of Spring)  
SPRING RETURN = 1477 - 14880 in.lbs (min torque)  
SPRING RETURN = 1761 - 17720 in.lbs (End of Spring)



## ■ Parts List

Description	Qty	Comments	Notes
BODY	1	Cast Steel	Epoxy Painted
LID	1	Cast Steel	Epoxy Painted
YOKE	1	Cast Steel	Zinc Plate
PISTON FLANGE	1	Steel	Epoxy Painted
END COVER	1	Steel	Epoxy Painted
PISTON HOUSING	1	Drawn Seamless Steel	Zinc Plated, Epoxy Painted
PISTON	1	Steel	Zinc Plated
PISTON ROD	1	Steel	Zinc Plated
FIXING BAR	4	Stainless Steel	
INDICATOR	1	Nylon	Yellow Strip
YOKE BEARING, UPPER	1	Bronze	
YOKE BEARING, LOWER	1	Bronze	
STOP BOLT	2	Steel	
YOKE PIN	1	Hardened Steel	
YOKE PIN BEARING	2	Steel	
PISTON BEARING	1	POM	Delrin
RETAINING PLATE	1	Steel	
END FLANGE, SPRING	1	Steel	Epoxy Painted
SPRING END COVER	1	Steel	Epoxy Painted
SPRING HOUSING	1	Steel	Zinc Plated, Epoxy Painted
SPRING PLUNGER	1	Steel	Zinc Plated
FIXING BAR, SPRING	4	Stainless Steel	
BASE, SPRING PACK	1	Steel	
SHAFT, SPRING PACK	1	Steel	
TOP HAT, SPRING PACK	1	Steel	
YOKE MODULE BEARING	2	Bronze	
O Seal, Piston, Piston Flange, End Cover	6	Buna Nitrile	Viton Optional
O Seal, Piston Inner	1	Buna Nitrile	Viton Optional
O Seal Piston Flange Inner	2	Buna Nitrile	Viton Optional
COMPRESSION SPRING OUTER	1	SiCr	
COMPRESSION SPRING MIDDLE	1	SiCr	
COMPRESSION SPRING INNER	1	SiCr	

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