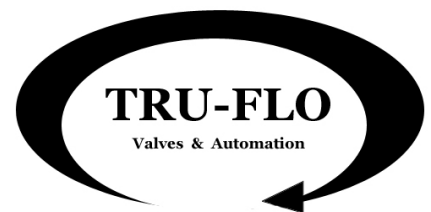


# *Series 30*



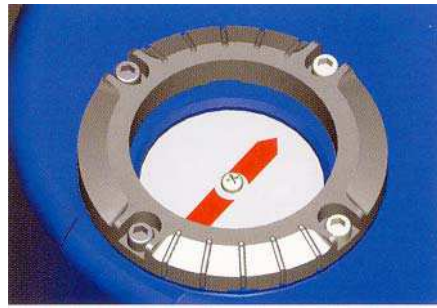
127 Village Lane  
Easley, SC 29642  
Ph: (864) 605-0150 Fax: (864) 605-0830 [www.tru-flo.com](http://www.tru-flo.com)



**Worm and Spur Gear  
Electric Actuators**



Optional Dome Indicator



### External Position Indicator

Indicator engages directly with drive shaft providing for a positive position indication. Flat flange type is standard. Optional dome type is available.



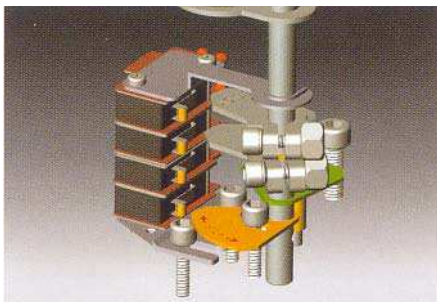
### Torque Switches

Provided on all models for open/close. Extra switches are available.



### Potentiometer

High resolution potentiometers and precisely machined gears are directly to the drive shaft for accurate feedback.



### Limit Switches

Directly engaged to the drive shaft provides for precise open/close set points. Optional extra switches are available.



# Introduction

## Features

Compact, rugged construction with a low weight to output torque ratio.

Torque range from 265 to 26,500 inch pounds.

Environmental protection of the aluminum actuator body and housing are hard anodized inside and out, with a powder coating applied to all outside surfaces.

Nema 4, 4x are standard with optional Nema 6 and Nema 7 units available.

No brakes are necessary, Models 30-0020 and 30-0050 have a self locking mechanism in the motor, Models 30-0080 to 30-2600 are self locking worm gear units.

Mounting base is to ISO 5211. Most models have dual ISO mounting patterns.

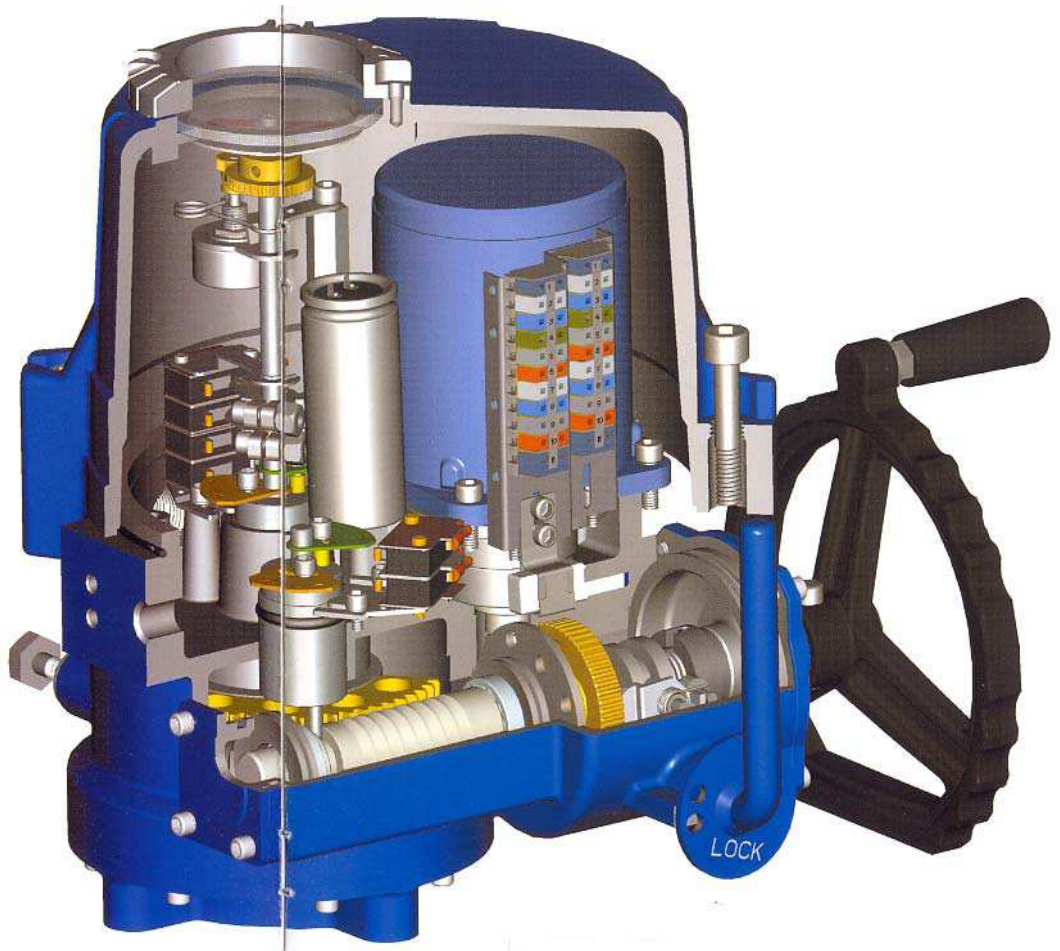
Drive socket is easily removed to allow for machining and installation.

Torque switches on Models 30-0100 to 30-2600.

Position indicators are standard on all models.

Overrides: Hand knobs for Models 30-0020 and 30-0050.

Lever engaged De-clutchable Hand wheel with Lock Out for Models 30-0800 to 30-2600.



## Housing

Hard anodized Aluminum casting and external powder coating preventing severe environmental attack.

## Gears

Precisely machined gears produces low noise, high torque, and minimum wear.

## Manual Override

Utilizes a manual engagement lever (pad lockable) to clutch in hand wheel. Automatically disengages when power returns.

## Sealing

Housing and body are sealed utilizing o-rings.

# FEATURES

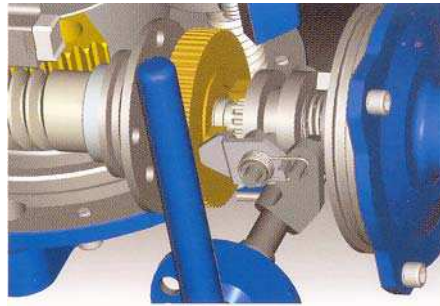


## External Travel Stops

All units utilize mechanical travel stops.

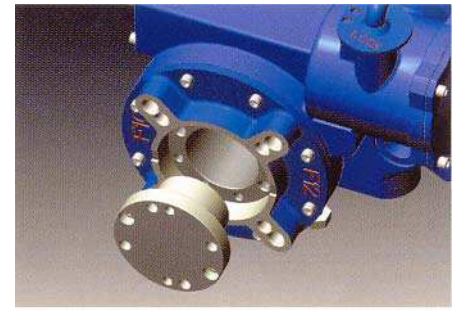
## Cable / Conduit Entries

2 3/4" cable entries standard. 1/2" and 1" are optional.



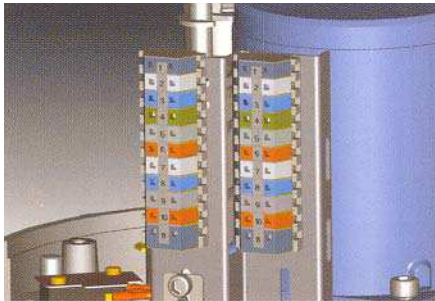
## Manual Override

Manual lever engagement of hand wheel. Atomically disengages when electrical power is restored. Manual override lever is pad-lockable.



## Removable Drive Bushing / ISO 5211 Mounting

Standard ISO 5211 mounting base (F03-F16). Easily removable drive adapter for machining or change outs.



## Motor

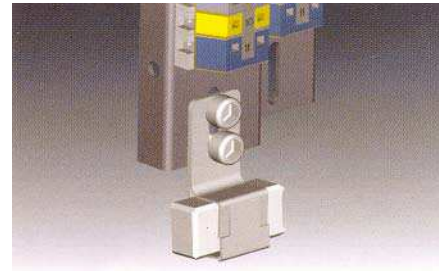
Specially designed induction motor to generate high starting torque and high efficiency equipped with thermal protector to prevent damage from over heating.

## Terminal Strip

Spring loaded push type terminal strip provides for a tight wiring connection.

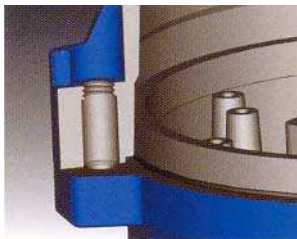
## Wiring

Standardized wiring system throughout the size range.

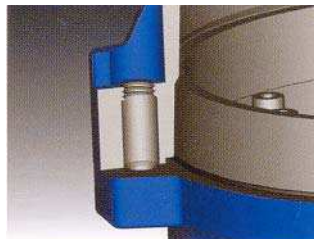


## Space Heater

Anti-condensation with thermal protector. Standard all sizes.



Standard short



Optional long (Explosion proof)

## Tapered Interface between Cover and Actuator Body

A tapered interface between the mounting flanges, provides for an easily removable cover. Nema 4 and 6 covers have a shorter engagement with the body. Nema 7 has a longer engagement with the body providing an explosion proof flame path.



## Technical Information

Model 30	Rated torque	Operating time 50/60Hz	Max bore size	Power consumption	Motor insulation class	Rate current (A)				No of handle turns	Wgt
						50/60Hz					
						1 Phase		3 Phase			
Size	Inch Pounds	90°	Inches	Watts		110V	220V	380V	440V	90°	lbs

### Model 0020, 0050

0020	265	12/9	0.55	15	F	0.5	0.3	NA	NA	9	4.5
0050	531	20/14	0.66	15	F	0.5	0.3	NA	NA	9	4.5

### Model 0080 to 0900

0080	885	21/18	0.9	15	F	0.95/1.05	0.50-0.55	N/A	N/A	10	15
0100	1,416	26/22	1.06	40	F	1.60/1.70	0.85/0.90	0.30/0.30	0.30/0.32	12	33
0200	2,124	26/22	1.06	40	F	1.62/1.72	0.87/0.92	0.32/0.32	0.32/0.34	12	33
0300	3,100	31/26	1.65	40	F	1.72/1.80	0.92/0.95	0.32/0.32	0.32/0.35	14	44
0400	4,425	31/26	1.65	90	F	3.60/3.90	1.30/1.60	0.52/0.56	0.55/0.58	14	44
0700	7,100	39/32	2.04	180	F	3.80/4.20	2.05/2.20	0.82/0.88	0.82/0.85	17	55
0900	9,800	39/32	2.04	180	F	3.90/4.30	2.15/2.30	0.84/0.90	0.84/0.88	17	55

### Model 1300 to 2600

1300	13,277	93/78	3.07	180	F	3.60/3.90	1.30/1.60	0.52/0.56	0.55/0.58	42	155
1700	17,702	117/97	3.07	180	F	3.80/4.20	2.05/2.20	0.82/0.88	0.82/0.85	52	155
2600	26,600	117/97	3.07	180	F	3.90/4.30	2.15/2.30	0.81/0.90	0.84/0.88	52	155



## Standard Specification

Enclosure	Weatherproof	IP67, Nema 4 and 4X, O-ring sealed
Main Power Supply		110/220 VAC/1Ph/50/60Hz, 380/440/VAC/3Ph/50/60/Hz $\pm$ 10%
Control Power Supply		110/220VAC/1Ph/50/60Hz $\pm$ 10%
Duty cycle (on-off)		S2, 20~50% Max 10Min~30Min
Duty Cycle (modulating)		S4, 30~50%, 300-1200 star/Hour
Motor		Squirrel Caged induction motor
Limit Switches		1 each for Open and Close (SPDT 250VAC/10A rating)
Torque Switches		1 each for Open and Close (SPDT 250VAC, 10A rating except for Mdl. 0020, 0050, 0080)
Stall protection/set temperature		Built in Thermal protection, High 150°C $\pm$ 5°C, Low 97°C $\pm$ 15°C
Travel angle		90° $\pm$ 5° (0°~100°)
Position indicator		Plate with indication Arrow
Manual override		De-clutchable (except for Mdl. 0020, 0050)
Self locking		Provided by double worm gearing (no brake) (except for Mdl. 0020, 0050 internal motor brake)
Mechanical stopper		1 each for each travel end (open and Close), external adjustable (except for Mdl. 0020, 0060)
Heater		5W (110/220VAC) for anti-condensation
Cable entries		2 X PF 3/4" TAP (except for Mdl. 0020, 0050 2X PT 1/2 TAP)
Lubrication		EP type grease
Terminal block		Screw and Lever Push type (spring loaded)
Ambient temperature		-20°C~70°C
Ambient humidity		90%RH Max (non-Condensing)
Anti vibration		XYZ 10g. 02~34Hz, 30 minutes
External coating		Dry power (Polyester)

## Option Availability

### Mechanical

Symbol	Description	Remark
DOM	Dome indicator	Except for Mdl. 0020, 0050
EX	Explosion proof (Ex d II B'(C) T4)	Except for Mdl. 0020, 0050
WT	Watertight (IP68)	Except for Mdl. 0020, 0050
ALS	Auxiliary limit switches (Max 4 for each travel end)	
ATS	Auxiliary torque switches (Max 4 for each travel end)	Except for Mdl. 0020,0050,0080
EXT	Extended travel angle (upto 120°, 135°, 180°, 270°)	Except for ITQ with Gear Box
SV	Variation in torque and operating speed	Please consult before order

### Remote monitoring and control

PK	Potentiometer kit (output signal: 0~1 Kohm)	
CT	Current transmitter (output: 4-20mA)	
RPC	Remote position controller (by input and output signal)	Refer to below signal configuration
RPD	Remote position controller (by input and output signal) with display (LCD)	
Signal	Input: 4-20mA, 0-10VDC, 2~10VDC, 1~5VDC, 0~5VDC	
Configuration	Output: 4-20mA, 0-10VDC, 2~10VDC, 1~5VDC, 0~5VDC	

### Local monitoring and control

LP 1	Local position control (Remote / Open / Stop / Close without lamps)
LP 2	Local position control (Remote / Local, Open / Stop / Close without lamps)
LM 1	Integrated motor starter without local switches (On-Off only)
LM 2	Local position control (Remote / Local, Open / Stop / Close without lamps)
	integrated motor starter (Mechanical)
LD	Local position control (Remote / Local / Open / Stop / Close
	with lamps) with integrated motor starter, monitoring relays

### Intelligent

IT-Pak (Intelligent)	LD pack with intelligent functions Auto calibration, Self Diagnosis, Profibus protocol and display	Available 2004
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