



**MTR TORQUE
REGULATOR POWERED
CABLE REELS**

www.metreel.co.uk





MTR TORQUE REGULATOR REEL

Metreel have available a complete range of motor driven torque regulator reels. The reels shown in this catalogue are direct reeling units where the cable compartment is mounted directly on the torque regulator.

The **MTR** range is a reliable, low cost solution to the problems of reeling long lengths of cable at the high duty cycle rates demanded by today's heavy industry.

Having decided to use a **MTR** motor driven reel to power your particular moving machine, you will have selected a system that is easily installed, has an absolute minimum maintenance requirement and is virtually unaffected by extreme of temperature and environment.

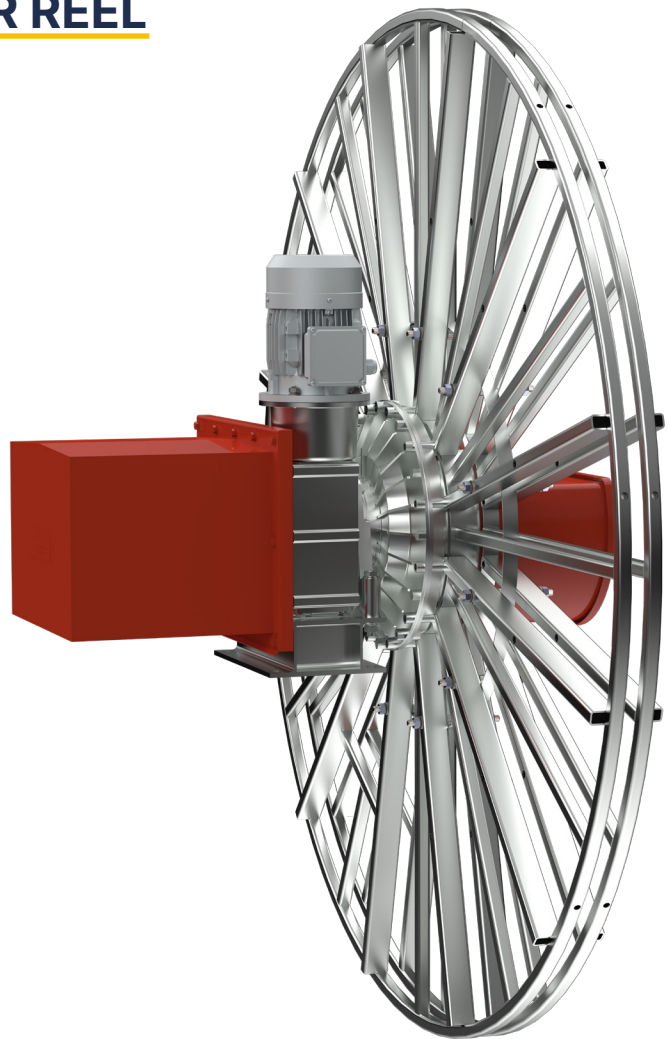
Advantages

- ◆ Uses standard AC or DC motor as prime mover.
- ◆ Design reduces substantially tensions in the reeled cable against other forms of drive.
- ◆ Lubricated for life gearbox.
- ◆ Range of drive units to suit various sizes and lengths of cable to be reeled.
- ◆ Reduced overall size as compared with conventional reels.
- ◆ Can be fitted with flameproof or marine specification motor.
- ◆ Brake unit is a function of the design.
- ◆ Range of bolt on interchangeable cable compartments.
- ◆ Interchangeable advanced design range of slipping and brush gear.

Benefits

- ◆ Low cost, immediate delivery, no replacement problems.
- ◆ Smaller cables, longer life, showing further cost savings.
- ◆ No chain drives, no maintenance.
- ◆ Low cost and short delivery. Selected reels will cover wide range of cable lengths and sizes.
- ◆ Simple installation, reduced site costs.
- ◆ Can be used in hazardous areas.
- ◆ No additional brake required, less moving parts and maintenance.
- ◆ Combinations of core sizes and quantities can be easily accommodated in standard housing.

The power unit drives the reel through an irreversible worm and wheel transmission which is totally enclosed and lubricated for life. The reduction ratio of the gearbox is fixed and rotational speed of the output spindle is selected by fitting the appropriate speed motor

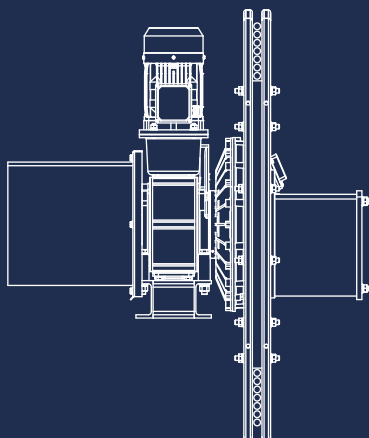


unit. In all cases, rotational speed of the output spindle is arranged to be in excess of that required for the cable reeling which ensures correct cable retrieval under all operating conditions. The energy dissipating capability of the torque regulator unit, is greater than the energy permissible through the gearbox thus ensuring adequate safety margins are applied to the torque regulator.

The cable compartment is directly mounted on the torque regulator unit which is easily adjustable in output to suit the various combinations of cable size and length to be reeled. The speed differentials encountered during reel in and out are accommodated by the torque regulator using the friction drive as a slipping interface. For this reason the slipping interface of the torque regulator has been positioned on the outboard shaft of the transmission thus isolating the reel from the referred inertia effects.

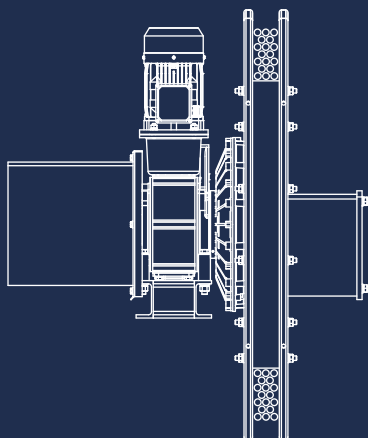
There are three basic forms of torque regulator units – single faced, double faced and fixed torque all of which mount on a common gearbox. The gearbox is capable of accepting motors of D90 to D132 frame size.

REEL SELECTION



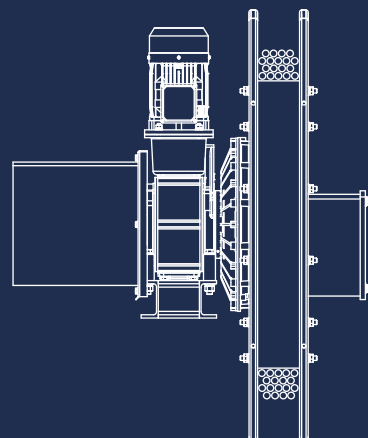
MONOSPIRAL (M)

This type of reel offers controlled reeling of cable and is recommended for high speed reeling applications where cable must be laid within defined limits.



STANDARD (S)

Standard lay reels are a compromise between monospiral and random lay reels and offer relatively controlled reeling within smaller dimensions.

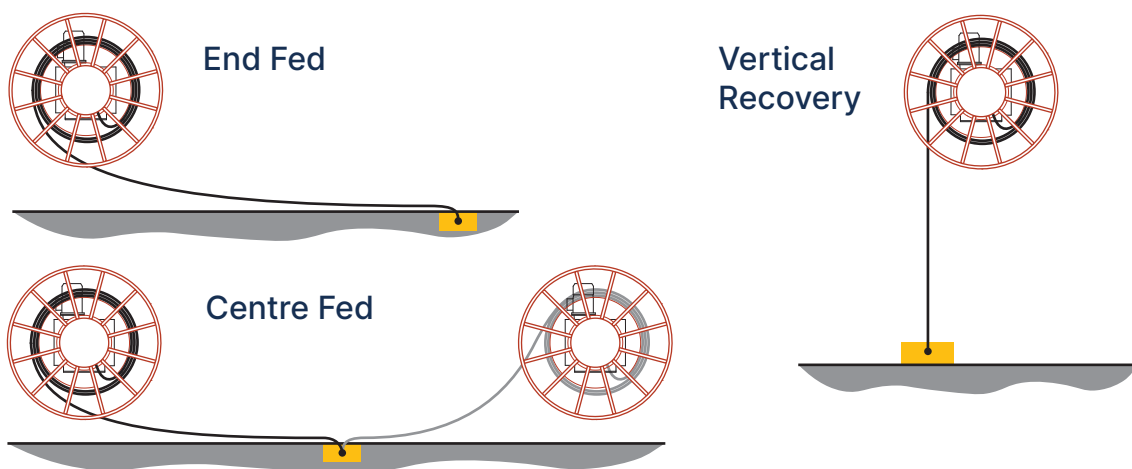


RANDOM (R)

Multiple turns and layers mostly used for vertical applications and also where space restrictions do not allow use of monospiral or standard lay designs.

APPLICATION

With most MTR reels it is not necessary to energise the reel during payout and to achieve this a very simple method of control has been designed. For centre fed applications a payout sensor switch if fitted inside the slipping housing along with a contactor and timer.



MODEL EXPLANATION

MTR819S - TR6514 - P04

SPOOL SIZE

See tables on following pages

COMPARTMENT TYPE

- S - Standard
- R - Random
- M - Monospiral

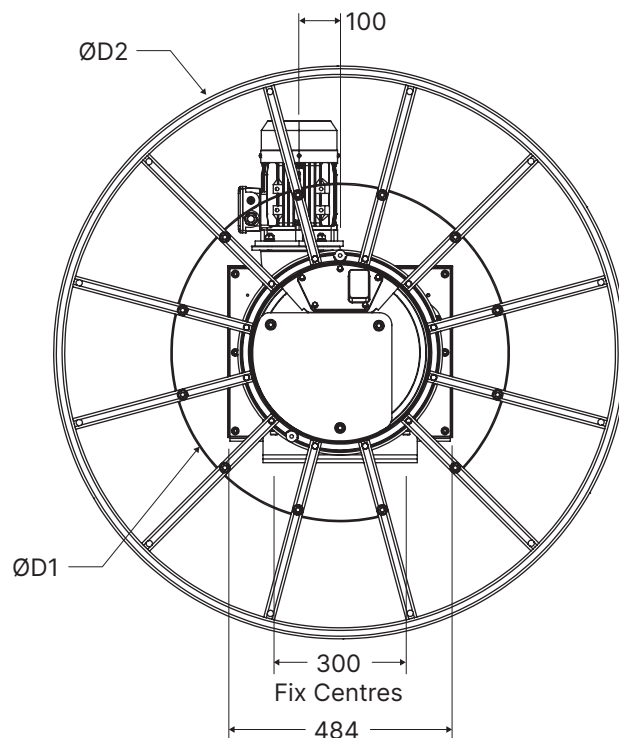
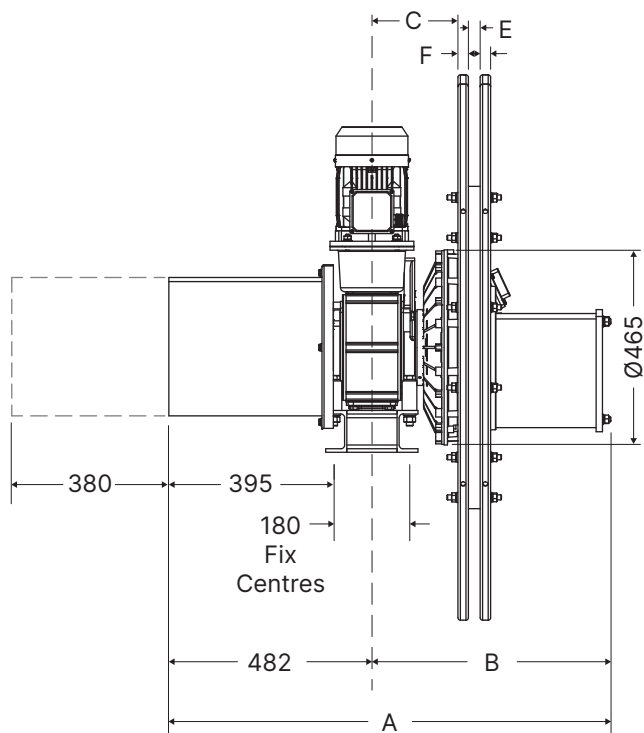
TORQUE REGULATOR MODEL

SLIPRING CAPACITY

- D = 30amps
- M = 60amps
- P = 100amps
- Q = 200amps

NO. OF RINGS

MONOSPIRAL



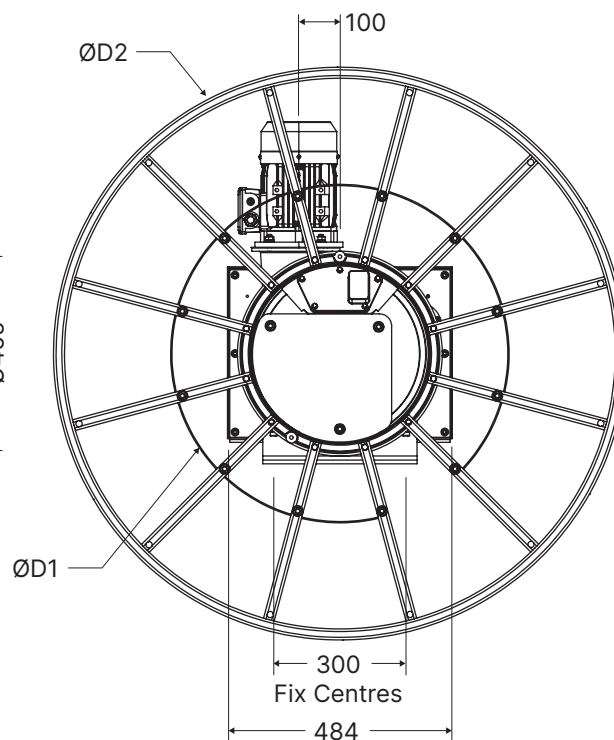
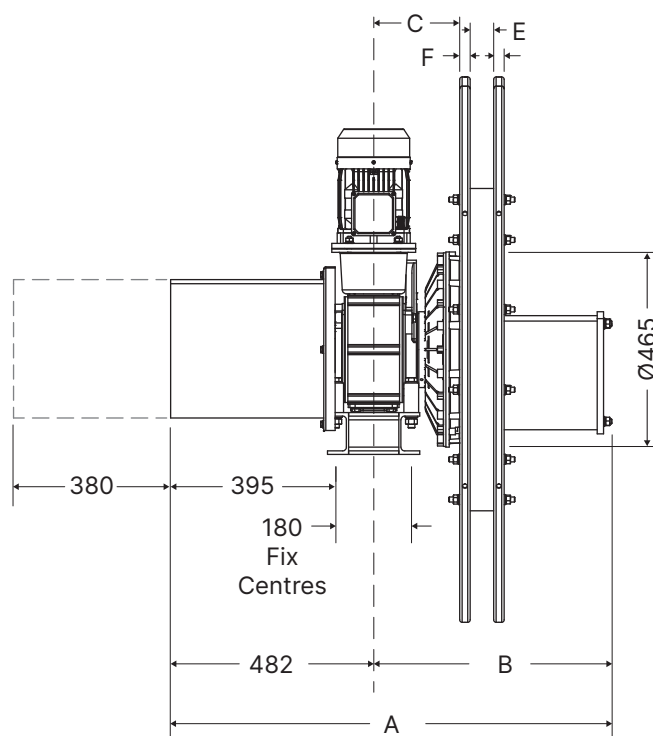
Reel Model	D1 (mm)	D2 (mm)	E	F (mm)	Kg.
813M	768	1300	1.1 x Cable Diameter.	26	230
816M	768	1600		26	248
1216M	1188	1600		26	248
819M	768	1900		51	323
1219M	1188	1900		51	323
1519M	1472	1900		51	323
822M	768	2200		51	350
1222M	1188	2200		51	350
1522M	1472	2200		51	350
825M	768	2500		51	377
1225M	1188	2500		51	377
1525M	1472	2500		51	377
828M	768	2800		51	404
1228M	1188	2800		51	404
1528M	1472	2800		51	404
831M	768	3100		51	431
1231M	1188	3100		51	431
1531M	1472	3100		51	431

Kg. : Reel weight without cable.

Reel Model	D1 (mm)	A (mm)	B (mm)	C (mm)
Single Face Units	TR0328 TR0356 TR0618 TR0628 TR0918 TR3214 TR1018 TR2418 TR1028 TR2528 TR1056 TR1556	1071	589	205
Double Face Units	TR1856 TR3818 TR3528 TR2856 TR5218 TR5128 TR6514 TR6018	1105	623	239

When cable compartment reference number includes letter F, C dimension = 155

STANDARD

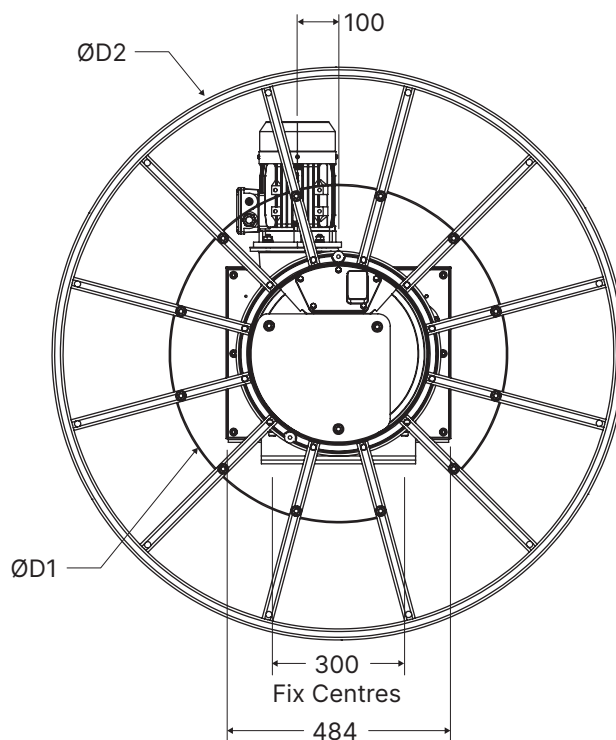
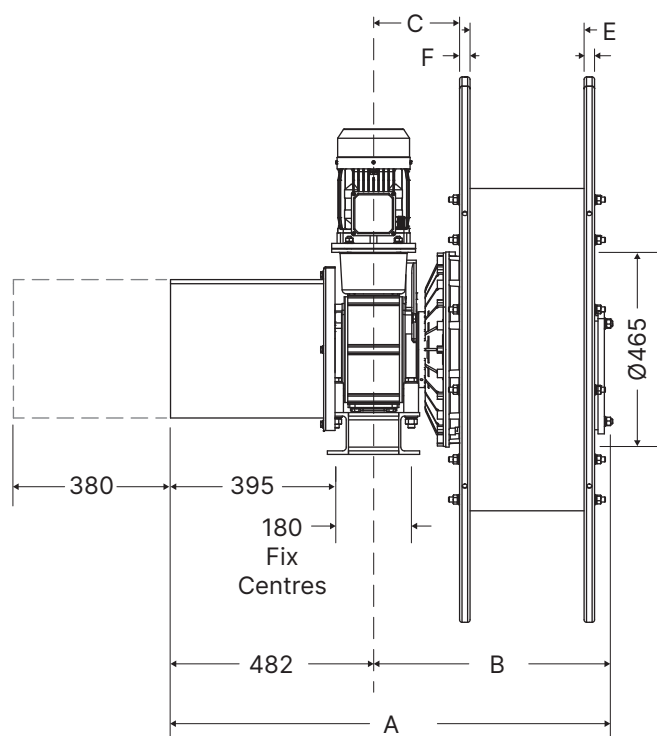


Reel Model	D1 (mm)	D2 (mm)	E	F (mm)	Kg.
813S	768	1300	3.1 x Cable Diameter.	26	230
816S	768	1600		26	248
1216S	1188	1600		26	248
819S	768	1900		51	323
1219S	1188	1900		51	323
1519S	1472	1900		51	323
822S	768	2200		51	350
1222S	1188	2200		51	350
1522S	1472	2200		51	350
825S	768	2500		51	377
1225S	1188	2500		51	377
1525S	1472	2500		51	377
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1231S	1188	3100		51	431
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Kg. : Reel weight without cable.

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When cable compartment reference number includes letter F, C dimension = 155



Reel Model	D1 (mm)	D2 (mm)	E	F (mm)	Kg.
5083R	468	800	300	3	236
5103R	468	1000	300	3	241
8133R	768	1300	300	26	235
8163R	768	1600	300	26	353
8193R	768	1900	300	51	328
8223R	768	2200	300	51	355
12163R	1188	1600	300	26	253
12193R	1188	1900	300	51	328
12223R	1188	2200	300	51	355
15193R	1472	1900	300	51	328
15223R	1472	2200	300	51	355

Kg. : Reel weight without cable.

Reel Model	D1 (mm)	A (mm)	B (mm)	C (mm)
Single Face Units	TR0328 TR0356 TR0618 TR0628 TR0918 TR3214 TR1018 TR2418 TR1028 TR2528 TR1056 TR1556	1071	589	205
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When cable compartment reference number includes letter F, C dimension = 155



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