

Turbo

DIMMINUTOR®

Open Channel Comminutor

**Automatic Screening and Grinding
of Water-borne Solids.**



**Franklin
Miller®**

Dimminutor and Configurations

The DIMMINUTOR provides automatic screening and grinding of liquid borne solids with a straight through open channel design. This unit reduces plastics, wood, vegetable matter, disposables, and other oversized items to a fine particulate. The Dimminutor's unique features, heavy precision construction, dependable operation and simplified maintenance have earned it a solid reputation amongst operators and specifying engineers worldwide.

Continuous Torque Rotation

The Dimminutor employs a smooth, continuously rotating design with high torque always available on demand. As its three bi-directional rotary cutters intermesh at close clearance with stationary cutters, solids are finely reduced to a size small enough to pass through a sizing screen. The Dimminutor is designed for unobstructed flow even during reversing cycles. The Dimminutor design has no gaps or openings between the screen and cutters so output is controlled and complete reduction assured.

Highly Reliable Operation

The Dimminutor is designed for reliable operation and easy maintenance. For example, with its cantilevered design, the Dimminutor needs no seals or bearings near the gritty channel floor. The unit's screen is stationary so it never wears against bottom grit. Each cutter is interchangeable and cutters can be removed or adjusted independently. The unit's seals and bearings are immersed in an oil bath for long life and low maintenance.



Automatic Reversing Controller

The S25060 control automatically senses jam conditions and reverses the unit operation. This control is supplied standard with a Nema 4X FRP enclosure, PLC, IEC starters and long life LED indicators. A wide variety of special control designs, features and components can also be supplied.

Dimminutor Construction and Configurations

Construction

Every Dimminutor component is constructed for long life and precision. The cutters are constructed of hardened stainless steel for superior corrosion resistance. With the Dimminutor's unique CLEAR-SLOT screen system, the cutters actually penetrate the individual slots of the screen and clear them with each revolution. The screens are precision cut from rugged stainless steel plate using laser technology. The result is a highly precise and durable screen. Full stainless steel construction is an available option.



Removable Cutters

Each cutter of the Dimminutor is individually replaceable or adjustable for maintenance. As there's no need to remove any cutter other than the one, maintenance is quicker and easier than on any other unit on the market today. The Dimminutor features a patent-pending screen design that is more heavily constructed and cleaner operating than ever before, making it the choice for higher solids and disposables.



Configurations

The Dimminutor is designed for ease of use and versatility. These units can be installed in straight thru channels, wet wells or water inlets and for full or occasional submergence. Units can be supplied with standard bolt down sole plate, support frames, or channel frames. Guide rails can also be supplied to facilitate removal from wet wells. A variety of drive configurations is available to meet most installation requirements including: standard electric motors, dry-running, submersible explosion proof motors, extended shafts, or hydraulic systems.

English

Dimminutor Capacity

Size	Capacity (MGD)	Avg. Flow Range (MGD)		Flow Max (MGD)	Slot Width (in)	HP	Wt. (lbs)
DM-T15	4.2	0.4	3.7	5.0	0.312	3	750
DM-T20	7.4	0.8	6.4	8.0	0.375	3	1000
DM-T25	11.5	1.3	9.7	13.0	0.375	3	1600
DM-T25XF	14.9	1.7	12.8	16.6	0.375	3	1740
DM-T36	20	2.4	17.2	22.9	0.375	3	2800
DM-T36XF	29	3.5	24.9	32.00	0.375	5	3400
DM-T42	38	4.6	32.6	42.5	0.375	5	4400

Metric

Size	Capacity (m ³ /hr)	Avg. Flow Range (m ³ /hr)		Flow Max (m ³ /hr)	Slot Width (mm)	KW	Wt. (kg)
DM-T15	660	70	580	790	8	2.2	340
DM-T20	1170	130	1010	1260	10	2.2	450
DM-T25	1810	210	1560	2050	10	2.2	730
DM-T25XF	2350	280	2020	2620	10	2.2	790
DM-T36	3150	370	2710	3610	10	2.2	1270
DM-T36XF	4570	550	3920	5050	10	4.0	1540
DM-T42	5990	720	5140	6700	10	4.0	2000

English

Dimminutor Duplex Capacity

Size	Capacity (MGD)	Avg. Flow Range (MGD)		Flow Max (MGD)	Slot Width (in)	HP (2 motors per machine)	Wt. (lbs)
DM-T25D	23.0	2.6	19.4	26.0	0.38	3	2,880
DM-T25XFD	29.8	3.4	25.6	33.2	0.38	3	3,132
DM-T36D	40.0	4.8	34.4	45.8	0.38	3	5,040
DM-T36XFD	58.0	7.0	49.8	64.0	0.38	5	6,120
DM-T42D	76.0	9.2	65.2	85.0	0.38	5	7,920

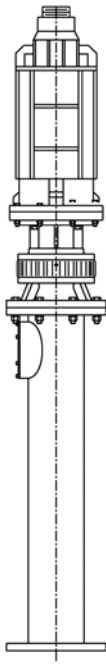
Metric

Size	Capacity (m ³ /hr)	Avg. Flow Range (m ³ /hr)		Flow Max (m ³ /hr)	Slot Width (mm)	KW (2 motors per machine)	Wt. (kg)
DM-T25D	3,628	410	3,060	4,101	10	2.2	1,306
DM-T25XFD	4,700	536	4,038	5,236	10	2.2	1,421
DM-T36D	6,309	757	5,426	7,224	10	2.2	2,286
DM-T36XFD	9,148	1,104	7,855	10,094	10	4.0	2,776
DM-T42D	11,987	1,451	10,284	13,407	10	4.0	3,592

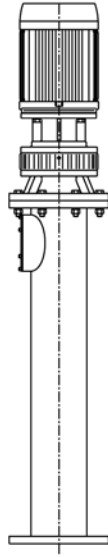
Drive Options



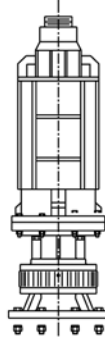
T-EXT
TEFC MOTOR



X-EXT
SUBM MOTOR



X-EXT
TEFC MOTOR



3HP SUBM MOTOR
REDUCER 29:1



HYDRAULIC DRIVE

The DIMMINUTOR is provided standard with a close coupled gear drive and c-face vertically mounted TEFC or explosion proof motor. A choice of drive options is available including:

“T” Extension: Raises the motor to desired height using an extended shaft coupling in a sealed pipe housing. The extended shaft runs between the motor and the gear reducer.

“X” Extension: Raises both the motor and gear reducer using a rugged, extended shaft and universal joint in a sealed pipe

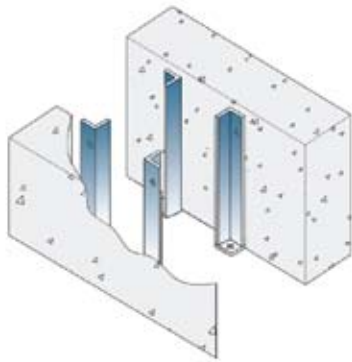
housing. Available with TEFC, XP or submersible motor.

Submersible Motor: Employs a submersible explosion proof (IP68) motor and special gear drive. This motor is rated for continuous operation while submerged or in air.

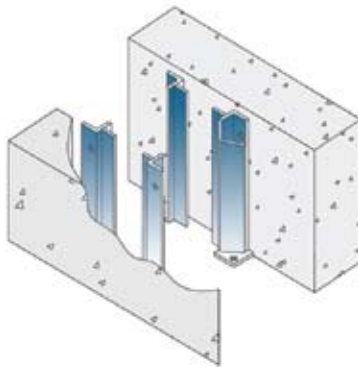
Hydraulic Drive: A hydraulic power pack is remotely installed with power transmitted to the hydraulic motor via flexible hose and hard pipe. The motor is direct coupled to the Dimminutor. Requires a larger motor than electric drives.



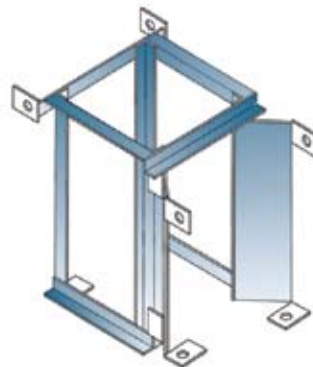
Channel Frames



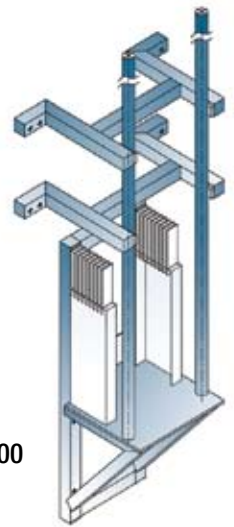
CF1000



CF1200



CF3000



CF4000

DIMMINUTOR can be provided with a standard sole plate design with mounting to channel floor or a choice of channel frames for easy slide in of the unit without fasteners. Several types of Channel Frames are available including:

CF1000: For channels with dimensions that closely match the width of the Dimminutor.

CF1200: For channels moderately wider than the Dimminutor. Four angles are fitted with spacers and flow diverters to adapt to the channel walls.

CF3000 For channels significantly wider than the Dimminutor. This is a one piece frame design that spaces the unit from each side wall.

CF4000 For mounting a DIMMINUTOR to the walls of a wet well. Typically provided with an overflow screen and a guide rail for easy unit removal.





DIMMINUTOR DIMENSIONS CHART

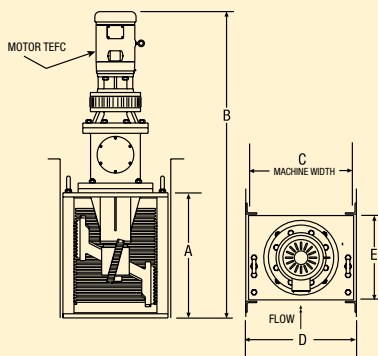
Dimensions with TEFC motor

DIMENSIONS (INCHES)

MODEL	A	B	C	D	E
DM-T15	22-5/8	58	19	19-1/2	15.3
DM-T20	27-1/2	64	29	30	24
DM-T25	35	72	35	36	29
DM-T36	44-5/8	84	47	48	42
DM-T36XF	58	112	47	48	42

DIMENSIONS (MILLIMETERS)

MODEL	A	B	C	D	E
DM-T15	575	1473	483	495	387
DM-T20	698	1626	737	762	610
DM-T25	889	1829	889	914	737
DM-T36	1133	2134	1193	1219	1067
DM-T36XF	1473	2845	1193	1219	1067



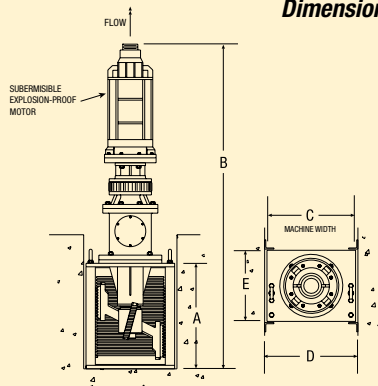
Dimensions with Submersible Explosion-Proof Motor

DIMENSIONS (INCHES)

MODEL	A	B	C	D	E
DM-T15	22-5/8	69-5/8	19	19-1/2	15.3
DM-T20	27-1/2	74-1/2	29	30	24
DM-T25	35	82-1/4	35	36	29
DM-T36	44-5/8	97-7/8	47	48	42
DM-T36XF	58	124-1/8	47	48	42

DIMENSIONS (MILLIMETERS)

MODEL	A	B	C	D	E
DM-T15	575	1768	483	495	387
DM-T20	698	1842	737	762	610
DM-T25	889	2089	889	914	737
DM-T36	1133	2486	1193	1219	1067
DM-T36XF	1473	3153	1193	1219	1067



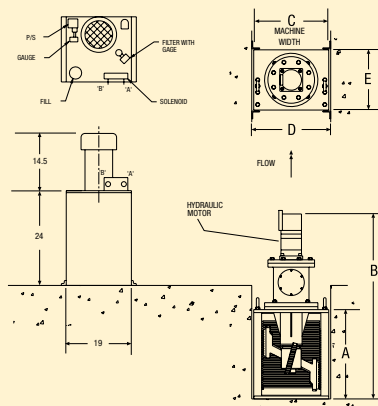
Dimensions with Hydraulic Motor

DIMENSIONS (INCHES)

MODEL	A	B	C	D	E
DM-T15	22-5/8	47-9/16	19	19-1/2	18
DM-T20	27-1/2	52-7/16	29	30	24
DM-T25	35	60-3/16	35	36	29
DM-T36	44-5/8	70-3/16	47	48	42
DM-T36XF	58	96-7/16	47	48	42

DIMENSIONS (MILLIMETERS)

MODEL	A	B	C	D	E
DM-T15	575	1208	483	495	387
DM-T20	698	1332	737	762	610
DM-T25	889	1529	889	914	737
DM-T36	1133	1783	1193	1219	1067
DM-T36XF	1473	2450	1193	1219	1067



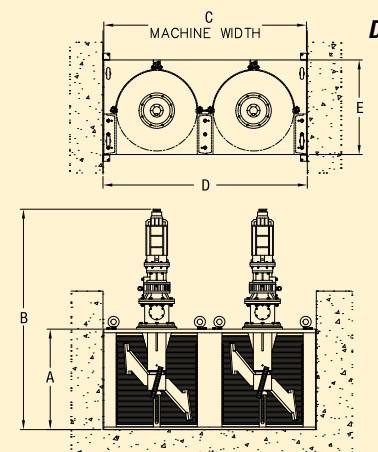
Duplex Dimensions with Submersible Motor

DIMENSIONS (INCHES)

MODEL	A	B	C	D	E
DM-T25D	35	85	65	39	29
DM-T25XDF	44-5/8	97	77	60	42
DM-T36D	44-5/8	97	88	72	42
DM-T36XDF	58	125	88	96	42
DM-T42D	58	125	53	96	47

DIMENSIONS (MILLIMETERS)

MODEL	A	B	C	D	E
DM-T25D	889	2159	1651	990	737
DM-T25XDF	1133	2464	1951	1524	1067
DM-T36D	1133	2464	2235	1828	1067
DM-T36XDF	1473	3175	2235	2438	1067
DM-T42D	1473	3175	1346	2438	1194

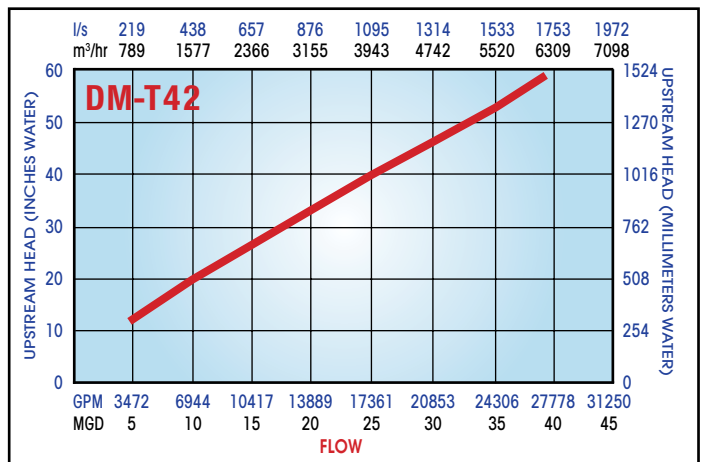
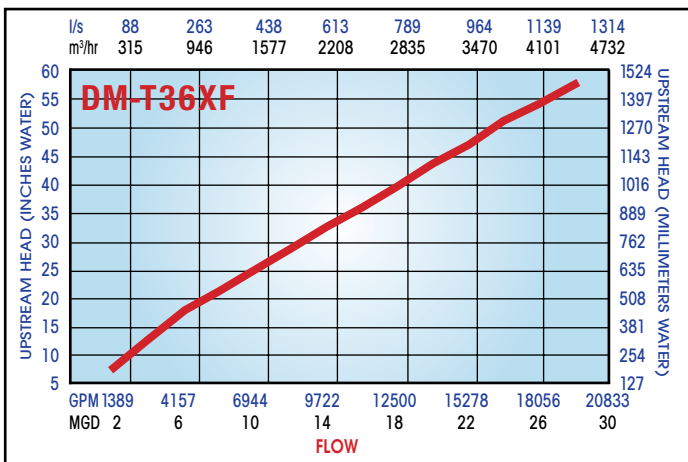
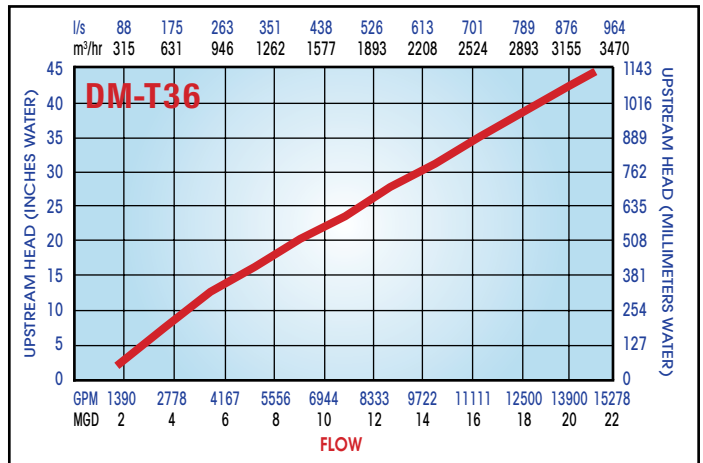
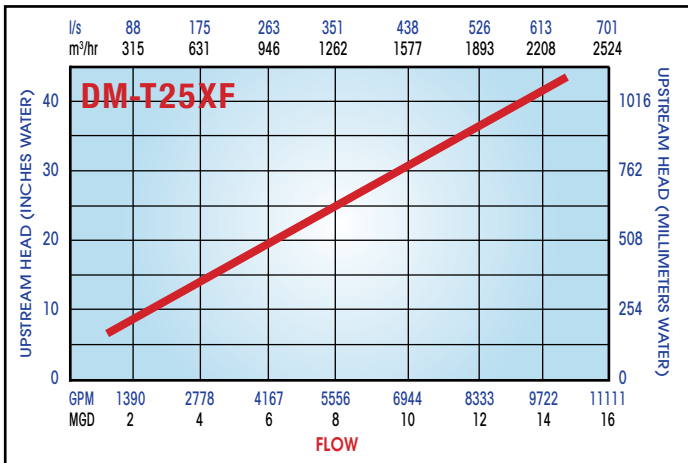
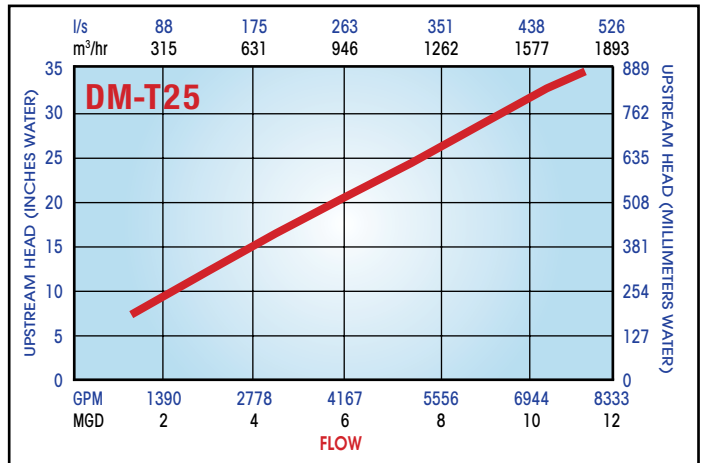
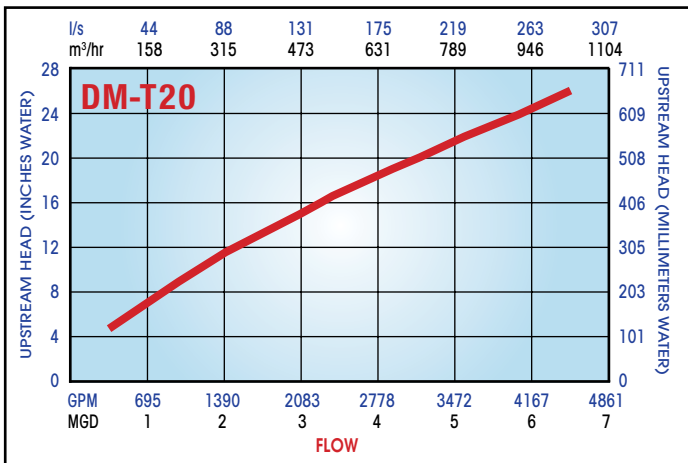
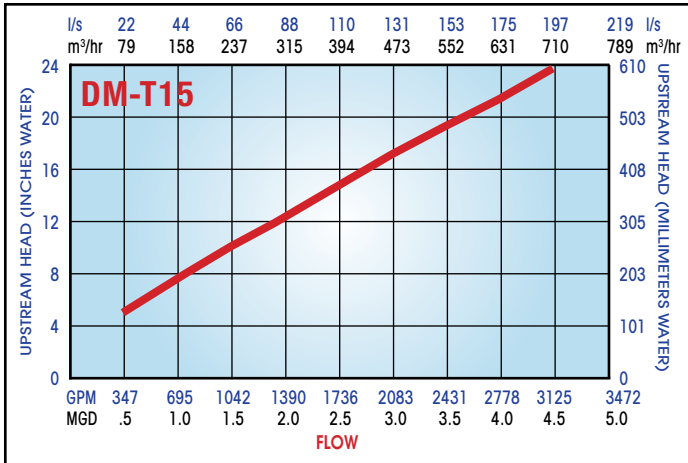


Using The Hydraulic Dimminutor Flow Charts

- Find the required flow along the bottom of the chart.
- Project up from this point to intersect with the flow line.
- Project from this intersection to the left to read upstream head value for flow.
- Calculate Headloss (Upstream Head - Expected Downstream Head).
- If headloss is greater than 6 inches (150mm) the charted upstream head value can be used.
- If calculated headloss is less than 6 inches, then calculate Upstream Head as Downstream Head + 6 inches (150 mm). (Corrected headloss value is now the minimum 6 inches).

Note: 1. Upstream Head is measured from the bottom of the Dimminutor.

2. Downstream head is a site based condition. If downstream head is unknown, use chart for estimate of upstream head.



See The Difference



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