TASKMASTER®

MODEL TM8500 SERIES GRINDERS

Franklin Miller®

See the difference...

Construction

The TASKMASTER TM8500 grinders set the standard for effective solids reduction, reliability and ease of maintenance. These units combine unique construction features with outstanding performance to provide optimal protection of plant processes and equipment as well as trouble-free operation.

These versatile, processors finely reduce such materials as rags, plastics, wood, debris, tampons, sanitary napkins, solid waste and more. They are invaluable in plant operations worldwide, keeping pipelines flowing, reducing pump downtime, enhancing screenings handling and protecting dewatering equipment such as centrifuges, filter presses and more.

The Cutter Cartridge Advantage

- With 1/16th the parts, maintenance is far easier.
- Cutters are sharper because they are fully machined and precision ground.

No Re-tightening... EVER!

Taskmaster Cutter Cartridges

The TM8500 The Cutter Cartridge replaces 12 cutter and spacer disks with a one-piece monolithic cutter element. These two counter-rotating cutter stacks intermesh at close clearance to intensively shear and shred solids into fine bits. This results in markedly increased unit strength and reliability, increased unit and cutter strength, resistance to cracking and the complete elimination of stack loosening and subsequent re-tightening requirements.

Configurations

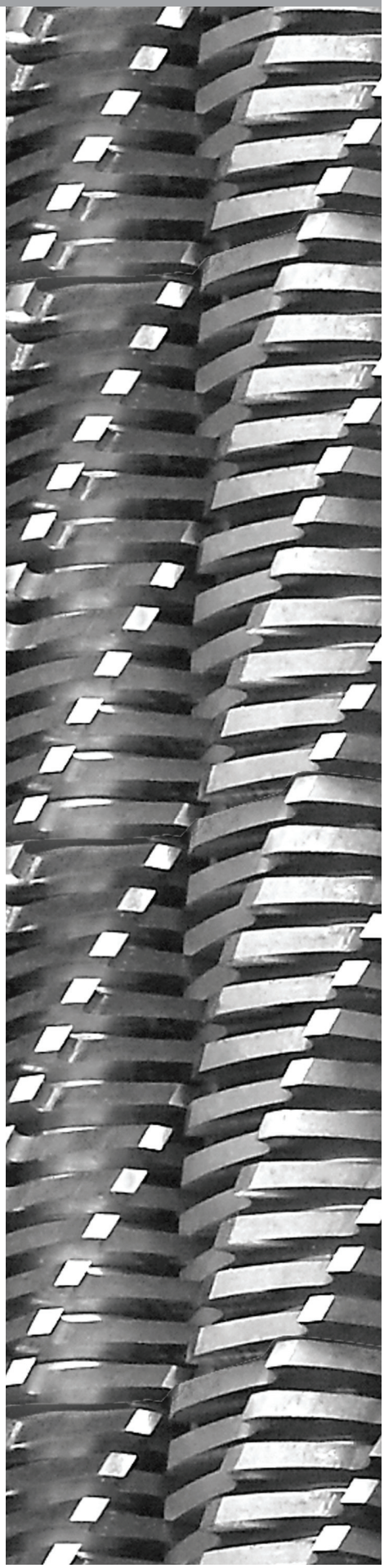
Taskmaster TM8500 grinders are heavily constructed for long life and smooth operation. These units are available for open channel installations, inline service and for gravity systems with stand and hopper. These units are provided with standard ductile iron and carbon steel construction or in optional stainless steel. The cutters and shafting are constructed of hardened alloy steel. The TM8500 features a highly reliable, severe duty mechanical seal system in a convenient cartridge design.

TASKMASTER CHANNEL - The TM8500 is available in a variety of heights to match channel configuration requirements. The units are provided with a choice of convenient channel frames or guide rails for easy installation and unit removal.

TASKMASTER DUPLEX - The Taskmaster Duplex (TM8500D) features four intermeshing cutter stacks and twice the cutting area and flow capability of a single TM8500. These units employ one common drive and motor to power all four cutting stacks.

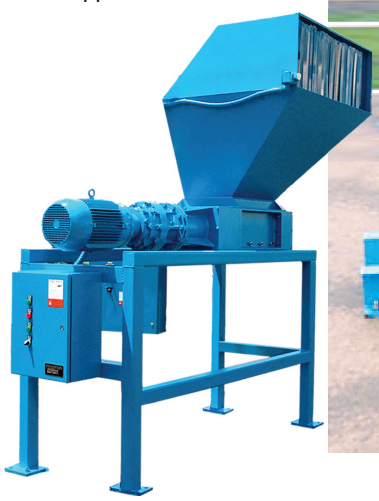
TASKMASTER GRAVITY - The Taskmaster TM8500 can be supplied with a stand and hopper for dry or wet gravity systems. This makes the TM8500 an excellent solution for screenings reduction and washing or general waste applications.

TASKMASTER INLINE - Taskmaster Inline Grinders reduce solids in gravity or pressurized pipelines to efficiently keep sludge, slurry or sewage systems flowing. These units feature the same reliable construction as the channel units and add a unique drop-in housing design wherein the entire unit can be quickly and easily removed from the housing without disturbing the pipe system. For application with high tramp solids, the optional TT housing features a trap area designed to allow heavy tramp materials to settle out protecting the grinder and downstream equipment.



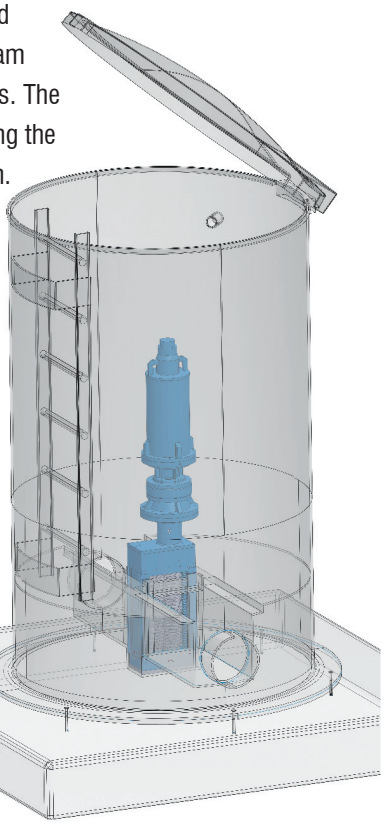
Channel Frames & Options

The Taskmaster is available with hopper and stands, both standard and custom designed. These are usually typically applicable to horizontal and gravity feed applications.

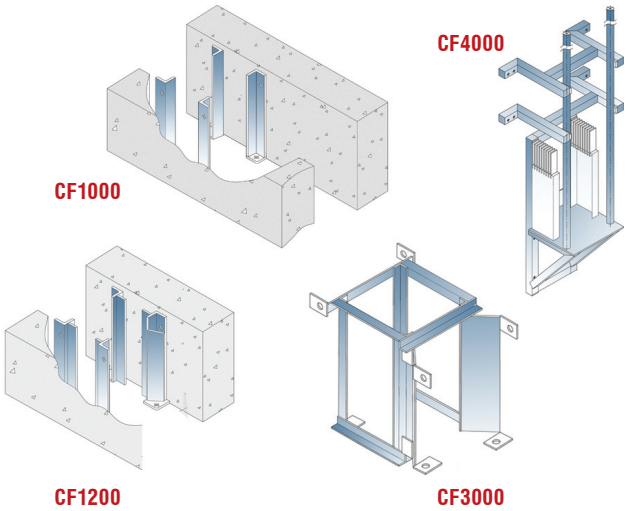


Taskmaster With Frp Manhole

This pre-engineered FRP manhole is constructed with a built-in channel designed for a standard Taskmaster TM8500 grinder. The complete manhole system can quickly be up and running - simply dig a hole, drop it in and hook it up -protecting downstream equipment and providing savings. The Manhole design makes accessing the grinder as easy as lifting a hatch.



Franklin Miller Grinder Manholes are custom designed to match the site requirements. They are available complete with access ladder, a choice of hatches and optional grinder guide rails, our fully submersible drive motors and control systems.



Taskmaster 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:

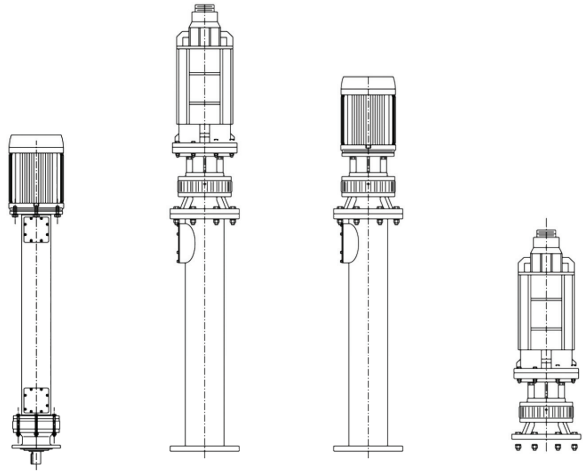
CF1000: For channels with dimensions that closely match the width of the Taskmaster.

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

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

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

Drive Options & Capacities



"T" Extension | Submersible Motor | "X" Extension TEFC Motor | Submersible Motor

The Taskmaster 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.

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.

FMI SUBMERSIBLE DRIVES

Franklin Miller Submersible Explosion Proof (IP68) motors and drives provide an effective and easy to install solution for applications subject to flooding. These motors are fully capable of operating continuously while submerged as well as in air.

CHANNEL FLOW RATES

ENGLISH	Width	Height	RPM	HP	Flow	
Model #	inches	inches			GPM	MGD
TM8512	12.0	21.7	60	3	550	0.8
TM8516	12.0	28.4	60	3	775	1.1
TM8524	12.0	32.9	60	3-5	1200	1.7
TM8532	12.0	40.4	60	3-5	1650	2.4
TM8540	12.0	47.9	60	3-5	2100	3.0
TM8552	12.0	59.1	60	3-5	2750	4.0
TM8560	12.0	66.6	60	5	3200	4.6
TM8524D	24.0	32.9	60	5	2429	3.5
TM8532D	24.0	40.4	60	5	3311	4.8
TM8540D	24.0	47.9	60	5	4149	6.0
TM8552D	24.0	59.1	60	5	5512	7.9

METRIC	Width	Height	RPM	HP	Flow	
Model #	mm	mm			l/s	m^3/hr
TM8512	305	551	60	2.2	35	125
TM8516	305	645	60	2.2	49	176
TM8524	305	836	60	2.2 - 4.0	76	273
TM8532	305	1026	60	2.2 - 4.0	104	375
TM8540	305	1217	60	2.2 - 4.0	132	477
TM8552	305	1501	60	2.2 - 4.0	173	625
TM8560	305	1692	60	4.0	202	730
TM8524D	610	836	60	4.0	153	600
TM8532D	610	1026	60	4.0	209	799
TM8540D	610	1217	60	4.0	265	999
TM8552D	610	1501	60	4.0	347	1399

IN-LINE FLOW RATES

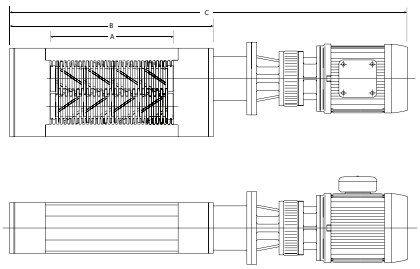
ENGLISH	Flange	Flange - Flange	Height	RPM	HP	Flow		Pressure Drop
Model #	in	in	in			gpm	mgd	psi
TM851204	04	21.25	51.50	60	3	400	0.58	0.5
TM851206	06	21.25	51.50	60	3	600	0.86	0.9
TM851208	08	21.25	51.50	60	3	800	1.15	1.6
TM851610	10	31.75	53.25	60	3	1000	1.44	1.2
TM852412	12	31.75	62.75	60	3	1200	1.73	1.6
TM162012	12	38.50	78.35	40	10	2500	3.60	3.0
TM163012	18	46.00	88.25	40	19	4000	5.76	1.4

METRIC	Flange	Flange - Flange	Height	RPM	HP	Flow		Pressure Drop
Model #	mm	mm	mm			l/s	m^3/hr	mbar
TM851204	100	540	1310	60	2.2	25	125	34
TM851206	150	540	1310	60	2.2	38	176	62
TM851208	200	540	1310	60	2.2	50	273	110
TM851610	250	810	1350	60	2.2	63	375	83
TM852412	300	810	1590	60	2.2	76	477	110
TM162012	300	980	1990	40	7.5	158	625	207
TM163012	460	1170	2240	40	7.5	252	730	97

Call one of our Customer Service Representatives to discuss your particular application.

Controller: An S260 Control System monitors unit operation and automatically cycles the grinder in case of an overload condition. This U.L. Listed industrial control panel is supplied complete with circuit breaker, a NEMA 4X FRP enclosure, self-test function, and 100,000 hour life LED indicators.

Dimensions

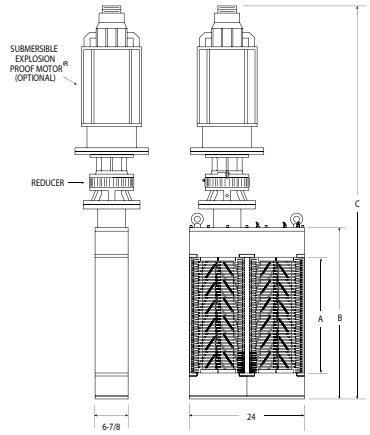


TEFC DIMENSIONS (INCHES)

MODEL	A	B	C	HP	WEIGHT	FLOW (GPM)
TM8512	12.9	21.7	50.6	3-5	463	550
TM8516	16.6	25.4	54.0	3-5	495	775
TM8524	24.1	32.9	61.5	3-5	560	1200
TM8532	31.6	40.4	69.0	3-5	625	1650
TM8540	39.1	47.9	76.5	3-5	690	2100
TM8552	50.3	59.1	90.9	5	870	2750
TM8560	57.8	66.6	98.4	5	935	3200

TEFC DIMENSIONS (MM)

MODEL	A	B	C	HP	WEIGHT	FLOW (L/SEC)
TM8512	328	551	1278	2.5-3.7	210	35
TM8516	422	645	1372	2.5-3.7	225	49
TM8524	612	836	1562	2.5-3.7	255	76
TM8532	803	1026	1753	2.5-3.7	284	104
TM8540	993	1217	1943	2.5-3.7	314	132
TM8552	1228	1501	2309	3.7	365	173
TM8560	1468	1692	2499	3.7	425	202



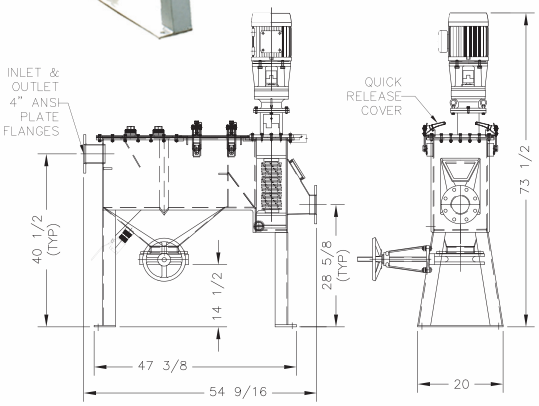
TM8500 DUPLEX DIMENSIONS (INCHES)

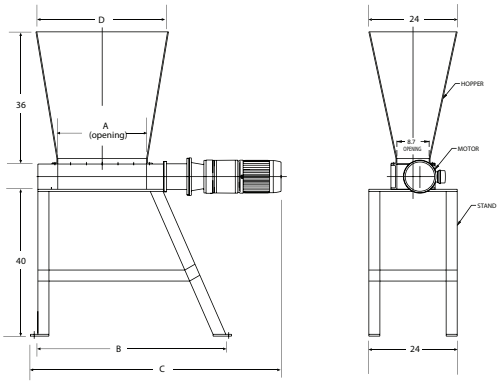
MODEL	A	B	C	FLOW (GPM)
TM8524D	24.1	32.9	74.3	2640
TM8532D	31.6	40.4	81.8	3520
TM8540D	39.1	47.9	89.3	4400
TM8552D	50.3	59.1	106.2	6160
TM8560D	57.8	66.6	113.7	6653

TM8500 DUPLEX DIMENSIONS (MM)

MODEL	A	B	C	FLOW (GPM)
TM8524D	612	836	1887	167
TM8532D	803	1026	2078	222
TM8540D	993	1217	2268	278
TM8552D	1425	1501	2698	389
TM8560D	1595	1692	2888	420

TASKMASTER TT WITH ROCK TRAP



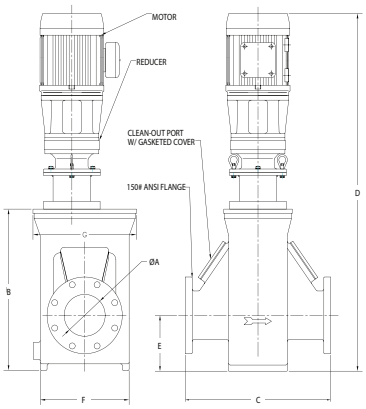


STAND & HOPPER DIMENSIONS (INCHES)

MODEL	A	B	C	D
TM8512	12.9	34	52.3	25
TM8516	16.6	36	56.0	29
TM8524	24.1	41	63.5	37
TM8532	31.6	46	71.0	45
TM8540	39.1	51	78.5	54

STAND & HOPPER DIMENSIONS (MM)

MODEL	A	B	C	D
TM8512	328	864	1328	635
TM8516	422	914	1422	737
TM8524	612	1041	1613	934
TM8532	803	1168	1803	1143
TM8540	993	1245	1494	1346



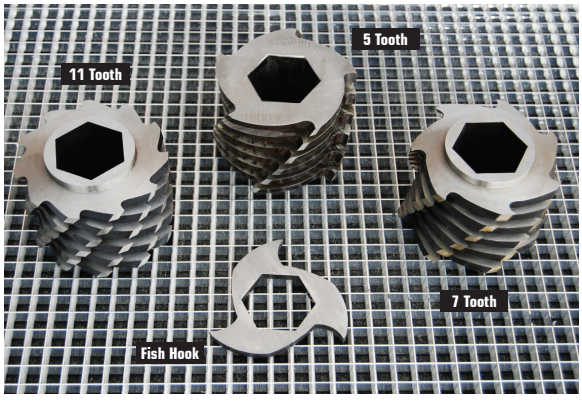
"DROP-IN" DESIGN DIMENSIONS (INCHES)

MODEL	A	B	C	D	E	F	G
TM850804	4	23.50	21.25	51.50	8	13	15.13
TM851206	6	23.50	21.25	51.50	8	13	15.13
TM851208	8	23.50	21.25	51.50	9	13	15.13
TM851610	10	34.75	31.75	62.75	10	13	15.13
TM852412	12	34.75	31.75	62.75	11	13	15.13

"DROP-IN" DESIGN DIMENSIONS (MM)

MODEL	A	B	C	D	E	F	G
TM850804	102	597	540	1308	203	330	384
TM851206	152	597	540	1308	203	330	384
TM851208	203	597	540	1308	228	330	384
TM851610	254	883	806	1594	254	330	384
TM852412	305	883	806	1594	279	330	384

CUTTER CONFIGURATIONS



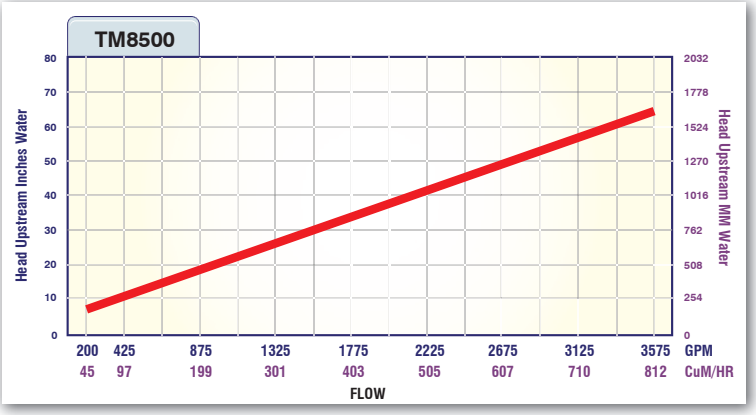
Flow Rates

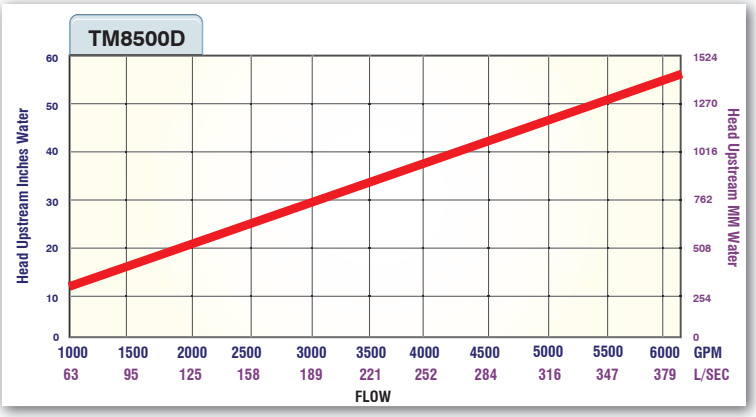
Using The Taskmaster® Hydraulic Flow Charts

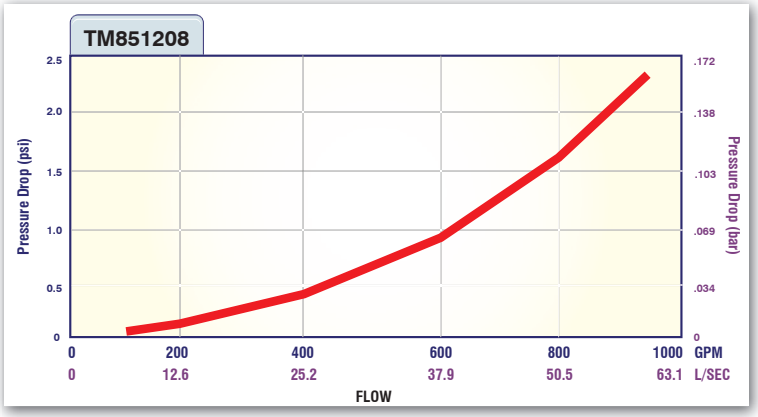
- Find the required flow along the bottom of the chart.
- Project up from this point to intersect with the flow line.
- Project left from this intersection to read upstream head value for flow.
- Calculate Headloss (Upstream Head - Expected Downstream Head).
- If headloss is greater than 6 inches (150mm) 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).

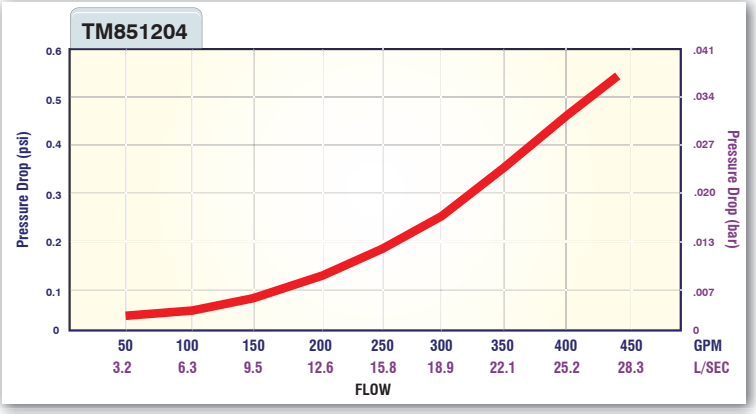
Notes:

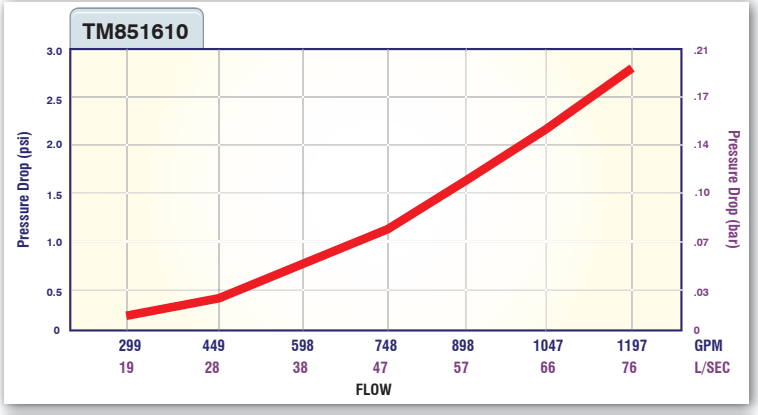
1. Upstream Head is measured from the bottom of the Taskmaster.
2. Downstream head is a site based condition. If downstream head is unknown, use chart for estimate of upstream head.

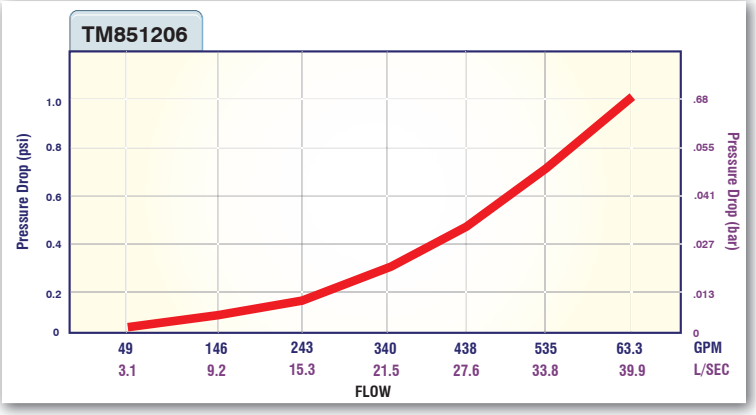


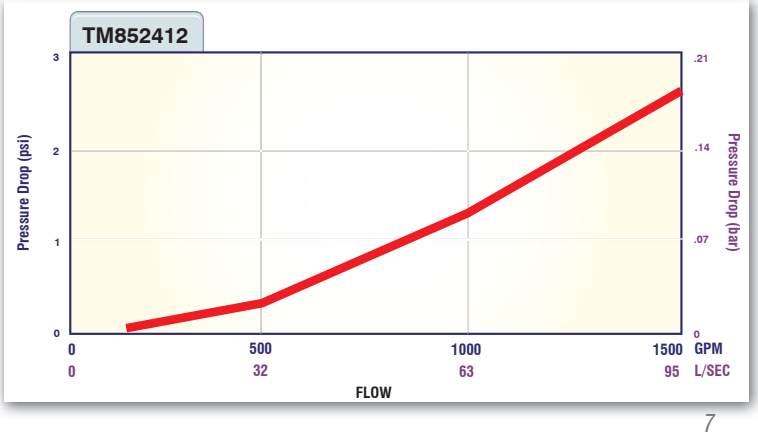


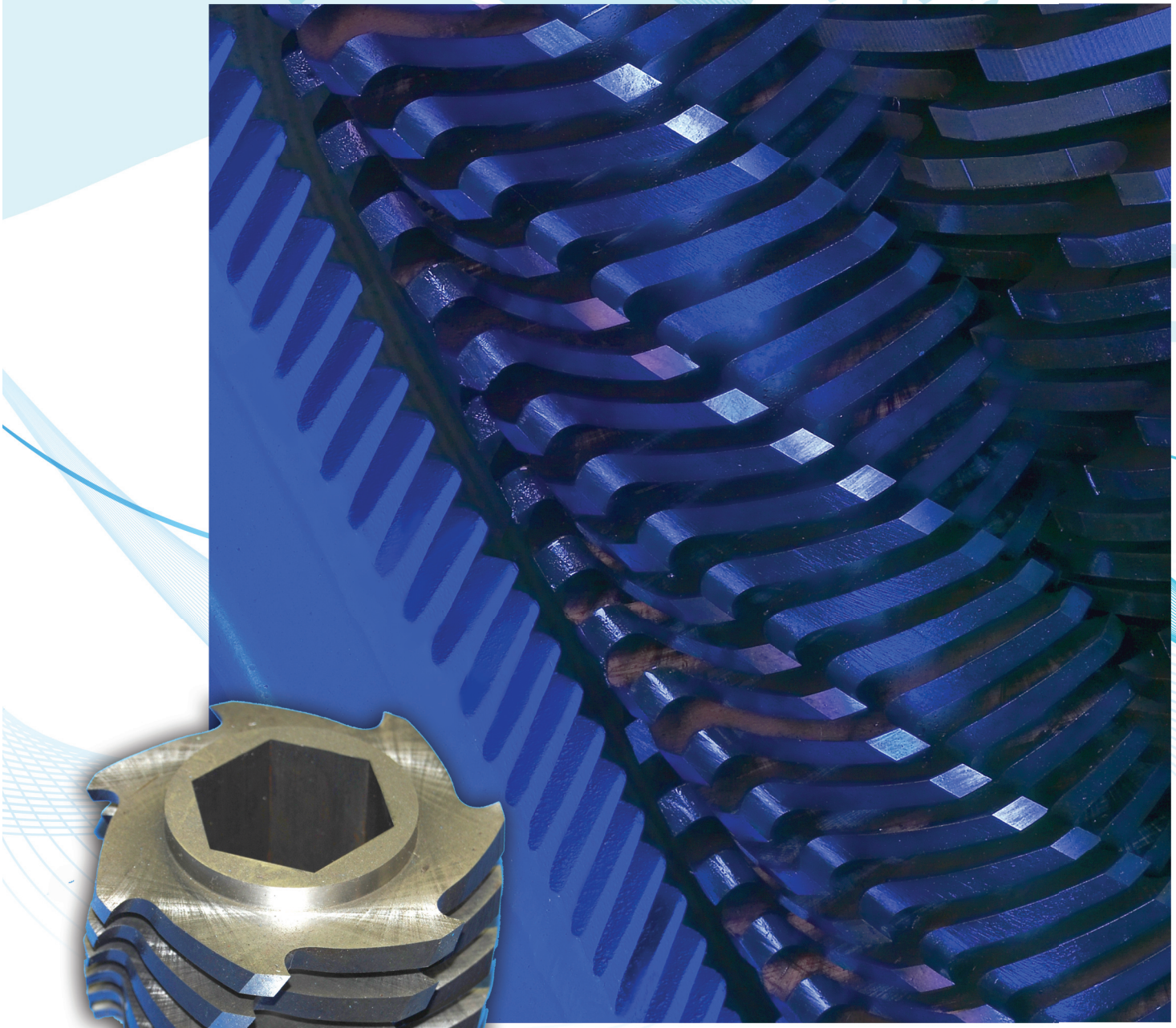












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Franklin Miller®

60 Okner Parkway, Livingston, NJ 07039
P: (973) 535-9200 • F: (973) 535-6269
info@franklinmiller.com

www.franklinmiller.com