

MTRL



MEDIUM PRESSURE WITH BACKWARD IMPELLER AND BELT TRANSMISSION

MANUFACTURING FEATURES:

- Fan made of Fe360 sheet. The fan paint finish is based on a Qualicoat polyester powder coating stoved at 200°C, with an average film thickness of 70 microns. Average heat resistance of coating is 180°C with peaks of 200°C.
- Fully welded or joined housing.
- Single inlet backward impeller with self-cleaning system made of Fe360 sheet statically and dynamically balanced. Impellers are painted with polyester primer that resists temperatures up to 300°C.
- Motorized fan with base frame (configuration 12). Full equipped fans including: motor, pulleys, belts, belts guard and shaft guard. Fitted over a base plate. IE4 motors for 75kW power or higher.
- It allows adjusting the orientation locally from models 250 to 630. Models sizes from 710 to 2000 size the orientation is fixed.

- Available positions (to be indicated in case of order): LG270, LG0, LG45, LG90, LG135, LG180, LG225, LG315, RD0, RD45, RD90, RD135, RD180, RD225, RD270, RD315.
- The indicated codes correspond to the model in position LG270

APPLICATIONS:

Designed for inline installation, they are suitable for:

- Industrial applications, extraction or injection of air.
- Cooling of machines and parts.
- Clean air and pneumatic transport.
- Exhaust after filters, separators and cyclones.
- Clean air or slightly dusty air transport.
- Maximum working temperature: carried air: 200°C, ambient: 60°C.

UNDER REQUEST

- Fans for 60Hz and special voltages.
- 2 speed motor.
- Fan with free shaft (configuration 1) or with motor supported on the pedestal side (configuration 9).
- C4 coating painting
- Hot dip galvanized
- Special steel (Cor-Ten A, Hardox...)
- Inox 304 (normal or electropolished finish)
- Inox 316 (normal or electropolished finish)
- Cooling wheel
- Anticaloric paint
- Reinforced housing
- Fully welded housing (waterproof)
- Insulated housing
- Split casing (for big sizes)
- Inspection door to facilitate maintenance and cleaning
- Drain plug.
- Airtight axle
- Frontal foot
- Double suction flange
- Non-sparking air passage and standard motor.
- Other brands of motors.

Accessories



AB



AC



AVR



AVS



BA-400



BADS



BIDS



EI



FS



INT



JE 45



RA



RI



SFC

Technical data

Three-phase motor

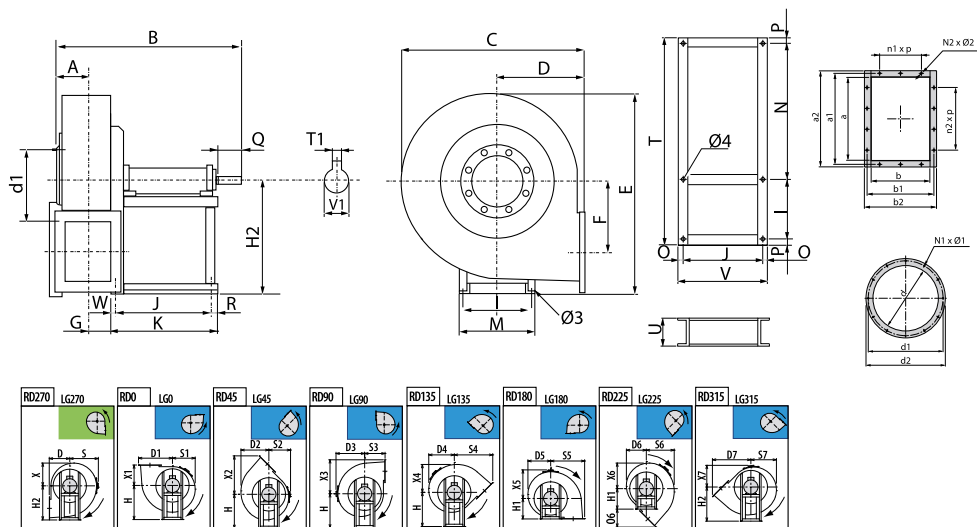
Code	Model	RPM	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
5046025__R__	MTRL 250	1700 rpm - 3500 rpm	0,37	3,00	2.960	60	32	1
5046028__R__	MTRL 280	1500 rpm - 3500 rpm	0,37	3,00	3.800	-	46	1
5046031__R__	MTRL 310	1350 rpm - 3500 rpm	0,55	4,00	6.120	64	50	1
5046035__R__	MTRL 350	1200 rpm - 3500 rpm	0,55	4,00	7.960	68	76	1
5046040__R__	MTRL 400	1100 rpm - 3500 rpm	1,50	11,00	12.670	72	92	1
5046045__R__	MTRL 450	950 rpm - 3300 rpm	2,20	15,00	16.750	76	105	1
5046050__R__	MTRL 500	850 rpm - 3000 rpm	2,20	15,00	19.190	76	145	1
5046056__R__	MTRL 560	750 rpm - 2600 rpm	3,00	22,00	25.570	77	196	1
5046063__R__	MTRL 630	700 rpm - 2300 rpm	3,00	22,00	32.780	77	239	1
5046071__R__	MTRL 710	600 rpm - 2100 rpm	5,50	37,00	43.820	78	360	1
5046080__R__	MTRL 800	550 rpm - 1900 rpm	5,50	45,00	52.910	79	442	1
5046090__R__	MTRL 900	500 rpm - 1700 rpm	11,00	55,00	66.730	79	570	1
5046100__R__	MTRL 1000	500 rpm - 1400 rpm	11,00	55,00	74.170	78	800	1
5046112__R__	MTRL 1120	400 rpm - 1300 rpm	15,00	90,00	105.590	79	1065	1
5046125__R__	MTRL 1250	350 rpm - 1150 rpm	30,00	90,00	122.410	79	1258	1
5046140__R__	MTRL 1400	350 rpm - 1050 rpm	45,00	132,00	158.510	80	1712	1
5046160__R__	MTRL 1600	300 rpm - 950 rpm	45,00	160,00	199.990	81	2363	1
5046180__R__	MTRL 1800	250 rpm - 800 rpm	45,00	200,00	250.730	80	2912	1
5046200__R__	MTRL 2000	250 rpm - 800 rpm	75,00	315,00	344.310	79	3413	1

Notes:

* The motor is not included in fan weight

** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



Model	A	B	C	D	D1	D2	D3	D4	D5
MTRL 250	94	530	471	195	313	255	276	235	212
MTRL 280	105	620	505	200	356	287	305	262	230
MTRL 310	117	644	557	225	397	316	332	288	256
MTRL 350	130	816	630	255	437	359	375	325	289
MTRL 400	147	869	685	285	487	387	400	353	311
MTRL 450	163	902	765	320	542	435	445	398	354
MTRL 500	183	1047	862	360	597	490	502	450	401

Model	D6	D7	E	F	G	H	H1	H2	I
MTRL 250	215	359	527	149	96	315	195	315	228
MTRL 280	226	393	605	172	105	375	200	375	288
MTRL 310	253	440	656	196	117	400	225	400	288
MTRL 350	278	492	739	216	131	450	255	450	355
MTRL 400	306	543	811	245	147	500	285	500	355
MTRL 450	342	609	914	275	165	560	320	560	355
MTRL 500	380	676	1001	303	185	600	360	600	364

Model	J	K	M	N1xØ1	N2xØ2	O	O6	P	Q
MTRL 250	210	282	255	Nº8 M6x20	10x12	17	164	13,5	40
MTRL 280	284	347	324	Nº8 M6x20	10x12	23	193	18	50
MTRL 310	284	347	324	Nº8 M6x20	10x12	23	215	18	50

Model	J	K	M	N1xØ1	N2xØ2	O	O6	P	Q
MTRL 350	407	485	400	Nº8 M8x25	10x12	28	237	13	60
MTRL 400	407	485	400	Nº8 M8x25	14x12	28	258	23	80
MTRL 450	407	485	400	Nº8 M8x25	14x12	28	289	23	-
MTRL 500	477	560	418	Nº8 M10x30	14x12	33	316	27	110

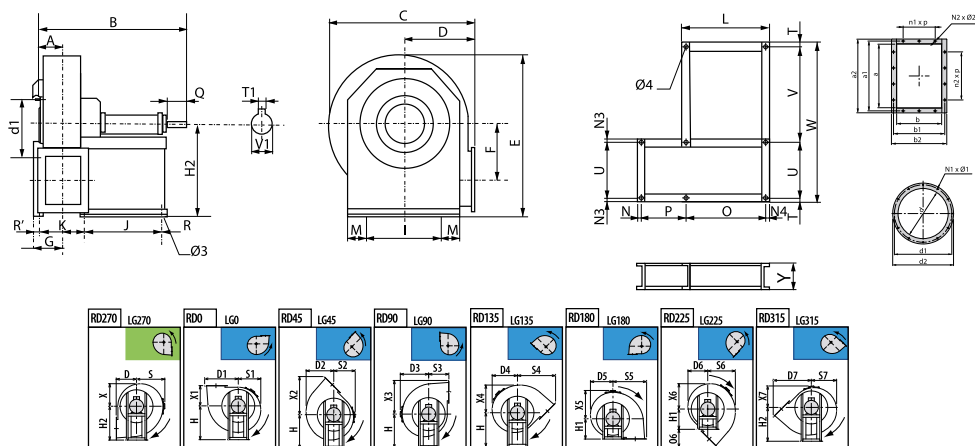
Model	R	S	S1	S2	S3	S4	S5	S6	S7
MTRL 250	-	276	212	215	195	359	313	255	235
MTRL 280	-	305	230	226	200	393	356	287	262
MTRL 310	-	332	256	253	225	440	397	316	288
MTRL 350	-	375	289	278	255	492	437	359	325
MTRL 400	-	400	311	306	285	543	487	387	353
MTRL 450	-	445	354	342	320	609	542	435	398
MTRL 500	33	502	401	380	360	676	597	490	450

Model	T	T1	U	V	V1	W	X	X1	X2
MTRL 250	6	6	80	19	19	55	212	195	359
MTRL 280	8	8	100	24	24	40	230	200	393
MTRL 310	8	8	100	24	24	40	256	255	440
MTRL 350	8	8	120	28	28	50	289	255	492
MTRL 400	10	10	120	38	38	50	311	285	543
MTRL 450	10	10	120	38	38	50	354	320	609
MTRL 500	12	12	140	42	42	50	401	360	676

Model	X3	X4	X5	X6	X7	a	a1	a2	b
MTRL 250	313	255	276	235	215	258	292	328	185
MTRL 280	356	287	305	262	226	288	332	368	205
MTRL 310	397	316	332	288	253	322	366	402	229
MTRL 350	437	359	375	325	278	361	405	441	256
MTRL 400	487	387	400	353	306	404	448	484	288
MTRL 450	542	435	445	398	342	453	497	533	322
MTRL 500	597	490	502	450	380	507	551	587	361

Model	b1	b2	d	d1	d2	n1xp	n2xp	Ø3	Ø4
MTRL 250	219	255	255	292	325	1x112	2x112	10	12
MTRL 280	249	285	285	332	365	1x125	2x125	12	15
MTRL 310	273	309	320	366	400	1x125	2x125	12	15
MTRL 350	300	336	360	405	440	1x125	2x125	14	15
MTRL 400	332	368	405	448	485	2x125	3x125	14	15

Model	b1	b2	d	d1	d2	n1xp	n2xp	Ø3	Ø4
MTRL 450	366	402	455	497	535	2x125	3x125	14	15
MTRL 500	405	441	505	551	585	2x125	3x125	17	18



Model	A	B	C	D	D1	D2	D3	D4	D5
MTRL 560	205	1177	970	400	667	555	570	542	485
MTRL 630	230	1233	1080	450	742	619	630	603	540

Model	D6	D7	E	F	G	H	H1	H2	I
MTRL 560	425	754	1155	332	255	670	400	670	632
MTRL 630	476	843	1290	373	280	750	450	750	702

Model	J	K	L	M	N	N1	N1xØ1	N2xØ2	N3
MTRL 560	477	488	543	30	23	33	Nº16 M10x30	14x14	30
MTRL 630	477	537	543	30	23	33	Nº16 M10x30	14x14	30

Model	N4	O	O6	P	Q	R	S	S1	S2
MTRL 560	33	477	354	488	110	33	570	485	425
MTRL 630	33	477	393	537	110	33	630	540	476

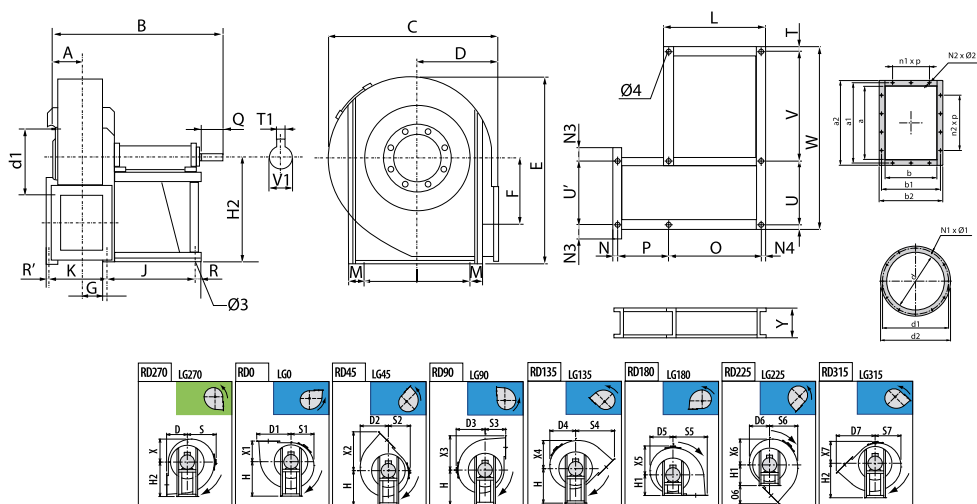
Model	S3	S4	S5	S6	S7	T	T1	U	V
MTRL 560	400	754	667	555	542	14	14	632	678
MTRL 630	450	843	742	619	603	30	14	702	708

Model	V1	W	X	X1	X2	X3	X4	X5	X6
MTRL 560	48	1370	485	400	754	667	555	570	542

Model	V1	W	X	X1	X2	X3	X4	X5	X6
MTRL 630	48	1470	540	450	843	742	619	630	603

Model	X7	Y	a	a1	a2	b	b1	b2	d
MTRL 560	425	160	569	629	669	404	464	504	565
MTRL 630	476	160	638	698	738	453	513	553	635

Model	d1	d2	n1xp	n2xp	Ø3	Ø4
MTRL 560	629	665	2x160	3x160	17	18
MTRL 630	698	735	2x160	3x160	17	18



Model	A	B	C	D	D1	D2	D3	D4	D5
MTRL 710	257	1340	1190	500	835	719	690	662	586
MTRL 800	287	1422	1342	560	939	811	782	749	652
MTRL 900	322	1491	1500	630	1047	905	870	835	723
MTRL 1000	360	1710	1686	710	1171	1015	976	936	815
MTRL 1120	404	1941	1884	800	1319	1132	1084	1037	932
MTRL 1250	452	2038	2114	900	1474	1270	1214	1163	1048
MTRL 1400	507	2252	2325	1000	1635	1395	1325	1272	1136
MTRL 1600	569	2590	2620	1120	1834	1572	1500	1434	1272
MTRL 1800	636	2750	2760	1250	2039	1790	1710	1640	1470
MTRL 2000	713	2905	3300	1400	2277	1980	1900	1811	1636

Model	D6	D7	E	F	G	H	H1	H2	I
MTRL 710	497	944	1436	427	314	850	500	670	772
MTRL 800	562	1061	1602	478	345	950	630	755	862

Model	D6	D7	E	F	G	H	H1	H2	I
MTRL 900	633	1186	1783	538	399	850	630	850	962
MTRL 1000	718	1330	1995	607	458	950	710	950	1056
MTRL 1120	793	1498	2252	684	501	1060	800	1060	1178
MTRL 1250	898	1679	2548	770	549	1190	900	1190	1310
MTRL 1400	990	1863	2836	854	634	1320	1000	1320	1450
MTRL 1600	1085	2090	3172	957	695	1500	1120	1500	1640
MTRL 1800	1300	2326	3590	1066	764	1650	1250	1650	1830
MTRL 2000	1455	2600	3996	1195	861	1850	1400	1850	2030

Model	J	K	L	M	N	N1	N1xØ1	N2xØ2	N3
MTRL 710	551	600	629	27	27	39	Nº16 M10x30	16x14	71
MTRL 800	551	662	629	32	47	39	Nº16 M10x30	14x14	91
MTRL 900	551	731	629	32	47	39	Nº16 M10x30	18x14	91
MTRL 1000	607	803	697	36	67	45	Nº16 M10x30	18x14	92
MTRL 1120	760	926	850	45	55	45	Nº24 M10x30	20x18	111
MTRL 1250	760	1023	850	45	55	45	Nº24 M10x30	24x18	110
MTRL 1400	780	1152	890	55	85	55	Nº32 M10x30	24x18	120
MTRL 1600	917	1305	1047	60	75	65	Nº32 M10x30	28x22	120
MTRL 1800	917	1452	1047	60	65	65	Nº32 M10x30	32x22	130
MTRL 2000	917	1606	1047	60	85	65	Nº32 M10x30	34x22	170

Model	N4	O	O6	P	Q	R	R'	S	S1
MTRL 710	39	551	444	600	110	39	27	690	586
MTRL 800	39	551	501	662	110	39	47	782	652
MTRL 900	39	551	556	731	110	39	47	870	723
MTRL 1000	45	607	620	803	140	45	67	976	815
MTRL 1120	45	760	398	926	140	45	55	1084	932
MTRL 1250	45	760	779	1023	140	45	55	1214	1048
MTRL 1400	55	780	863	1152	170	55	85	1325	1136
MTRL 1600	65	917	970	1305	210	65	75	1500	1272
MTRL 1800	65	917	1076	1452	210	65	65	1710	1470
MTRL 2000	65	917	1200	1606	210	65	85	1900	1636

Model	S2	S3	S4	S5	S6	S7	T	T1	U
MTRL 710	497	500	944	835	719	662	27	14	772
MTRL 800	562	560	1061	939	811	749	32	16	862
MTRL 900	633	630	1186	1047	905	835	32	16	962
MTRL 1000	718	710	1330	1171	1015	936	36	18	1056
MTRL 1120	793	800	1498	1319	1132	1037	45	20	1178
MTRL 1250	898	900	1679	1474	1270	1163	45	20	1310
MTRL 1400	990	1000	1863	1635	1395	1272	55	22	1450
MTRL 1600	1085	1120	2090	1834	1572	1434	60	25	1640
MTRL 1800	1300	1250	2326	2039	1790	1640	60	28	1830
MTRL 2000	1455	1400	2600	2277	1980	1811	60	28	2030

Model	U'	V	V1	W	X	X1	X2	X3	X4
MTRL 710	772	807	48	1633	586	500	944	835	719
MTRL 800	862	842	55	1768	652	560	1061	939	811
MTRL 900	962	987	55	2013	723	630	1186	1047	905
MTRL 1000	1056	1036	65	2164	99	710	1330	1171	1015
MTRL 1120	1178	1066	75	2334	932	800	1498	1319	1132
MTRL 1250	1310	1230	75	2630	1048	900	1679	1474	1270
MTRL 1400	1450	1240	80	2800	1136	1000	1863	1635	1395
MTRL 1600	1640	1205	90	2965	1272	1120	2090	1834	1572
MTRL 1800	1830	1295	100	3245	1470	1250	2326	2039	1790
MTRL 2000	2030	1350	100	3500	1636	1400	2600	2277	1980

Model	X5	X6	X7	Y	a	a1	a2	b	b1
MTRL 710	690	662	497	180	715	775	815	507	567
MTRL 800	782	749	562	180	801	871	921	569	639
MTRL 900	870	835	633	180	898	968	1018	638	708
MTRL 1000	976	936	718	200	1007	1077	1127	715	785
MTRL 1120	1084	1037	793	220	1130	1210	1270	801	881
MTRL 1250	1214	1163	898	220	1267	1347	1407	898	978
MTRL 1400	1325	1272	990	220	1421	1501	1561	1007	1087
MTRL 1600	1500	1434	1085	220	1593	1683	1753	1130	1220
MTRL 1800	1710	1640	1300	250	1786	1876	1946	1267	1357
MTRL 2000	1900	1811	1455	250	2003	2093	2163	1421	1511

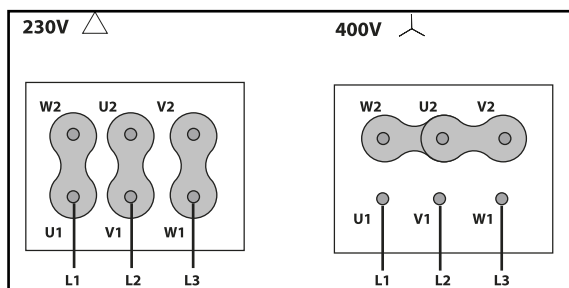
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MTRL 710	607	715	775	815	2x160	4x160	19	20
MTRL 800	689	805	861	905	2x200	3x200	19	20
MTRL 900	758	905	958	1005	3x200	4x200	19	20
MTRL 1000	835	1007	1067	1107	3x200	4x200	19	20
MTRL 1120	941	1130	1200	1250	3x200	5x200	24	25

Model	b2	d	d1	d2	n1xp	n2xp	Ø3	Ø4
MTRL 1250	1038	1260	1337	1380	4x200	6x200	24	25
MTRL 1400	1147	1420	1491	1540	4x200	6x200	24	25
MTRL 1600	1290	1610	1663	1730	5x200	7x200	28	30
MTRL 1800	1427	1810	1856	1930	6x200	8x200	28	30
MTRL 2000	1581	2010	2073	2130	6x200	9x200	28	30

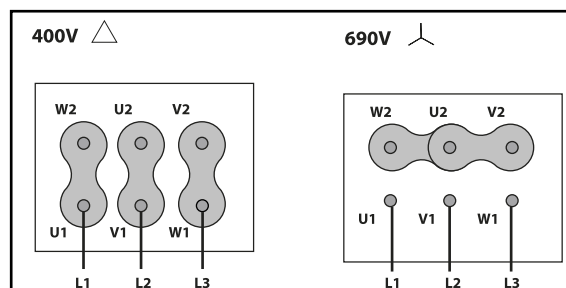
Wiring diagram

Wiring diagram Nº 1

230/400V



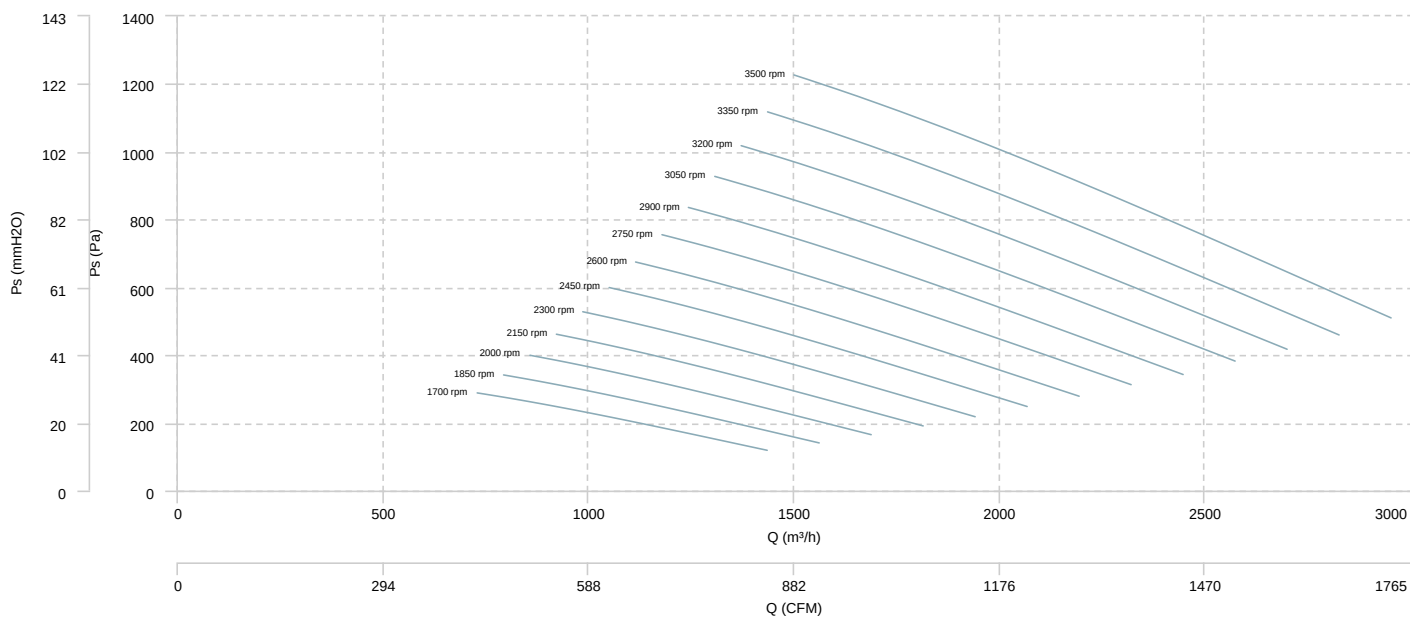
400/690V



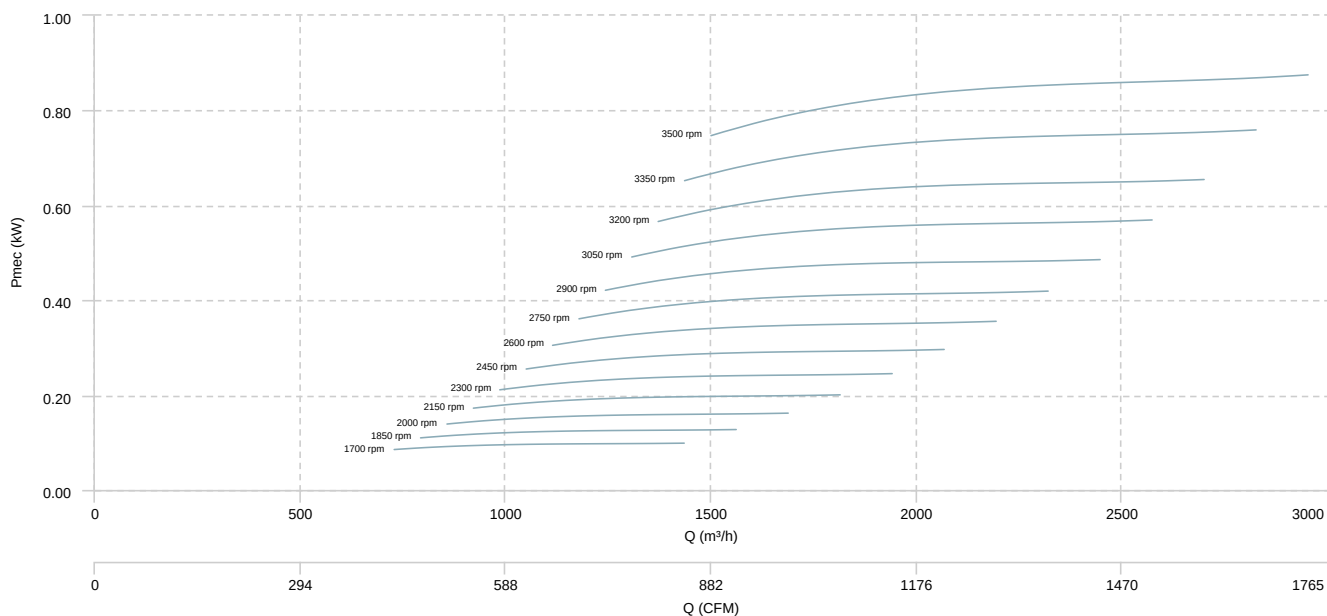
CHARACTERISCTIC CURVE

MTRL 250

AIR FLOW - PRESSURE

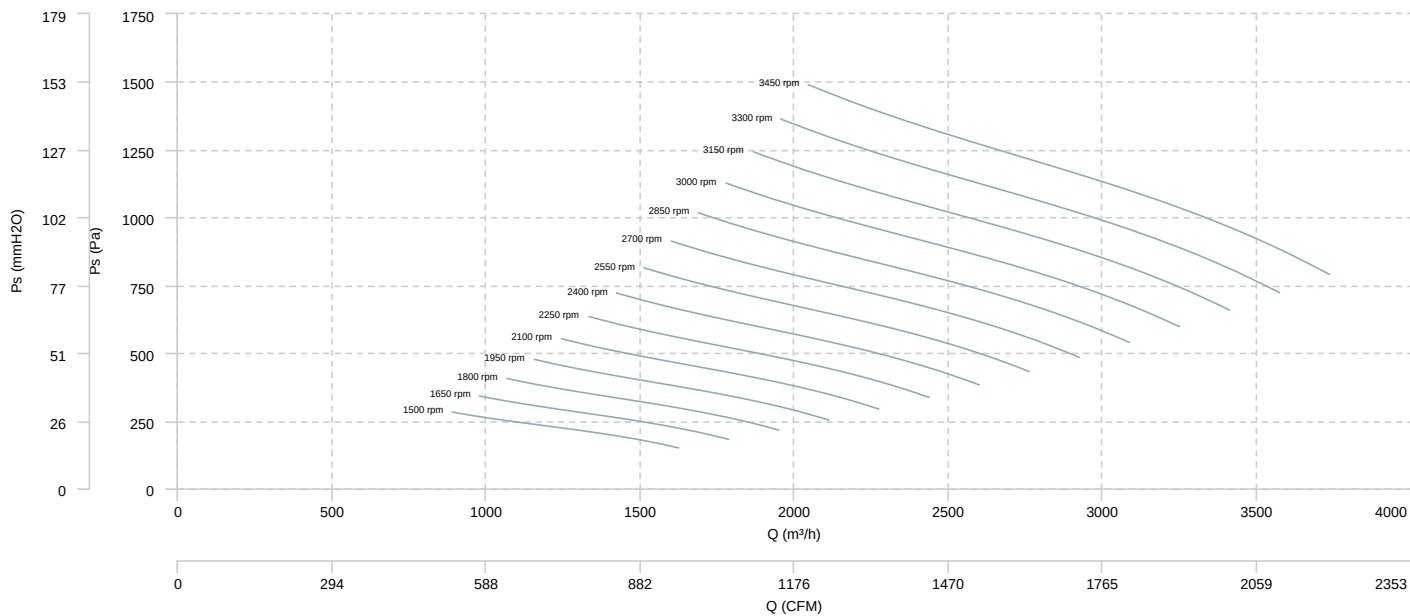


AIR FLOW - MECHANICAL POWER

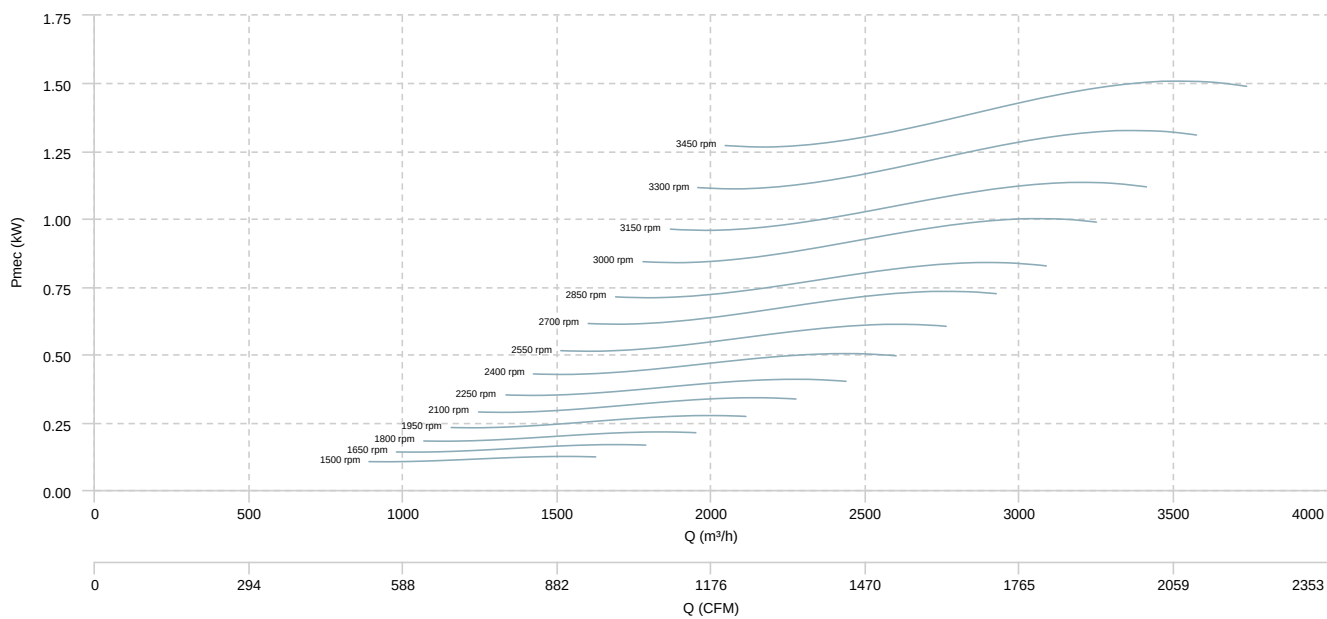


MTRL 280

AIR FLOW - PRESSURE

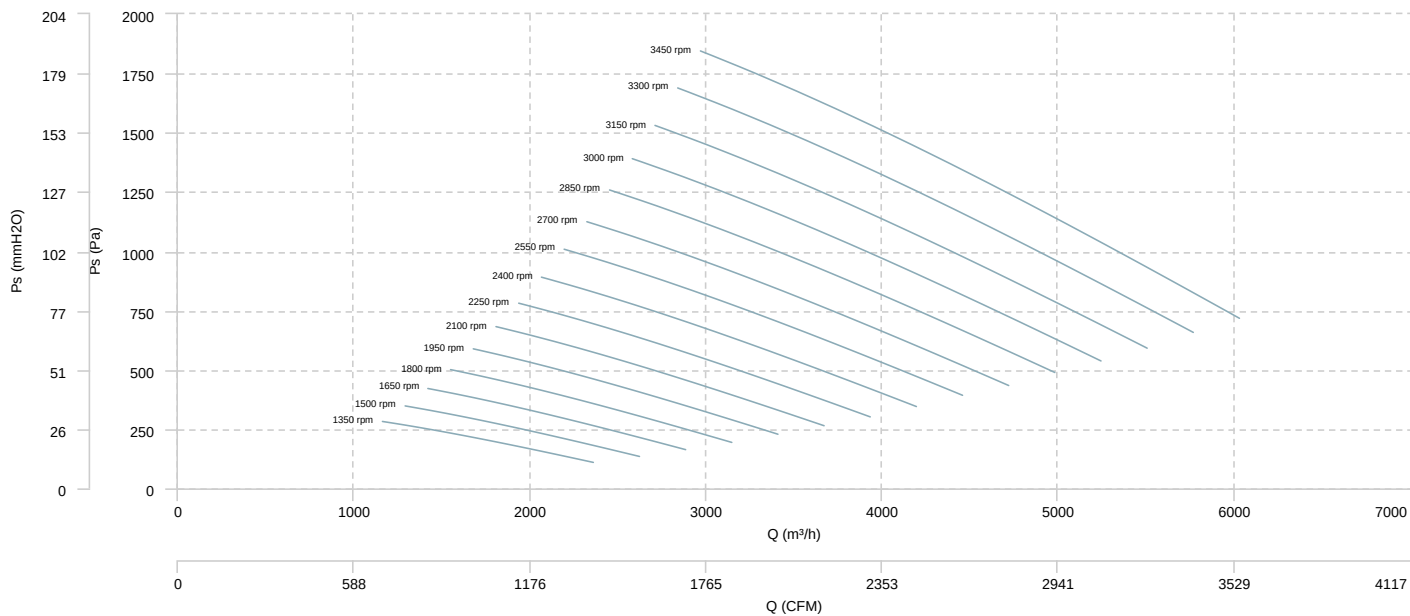


AIR FLOW - MECHANICAL POWER

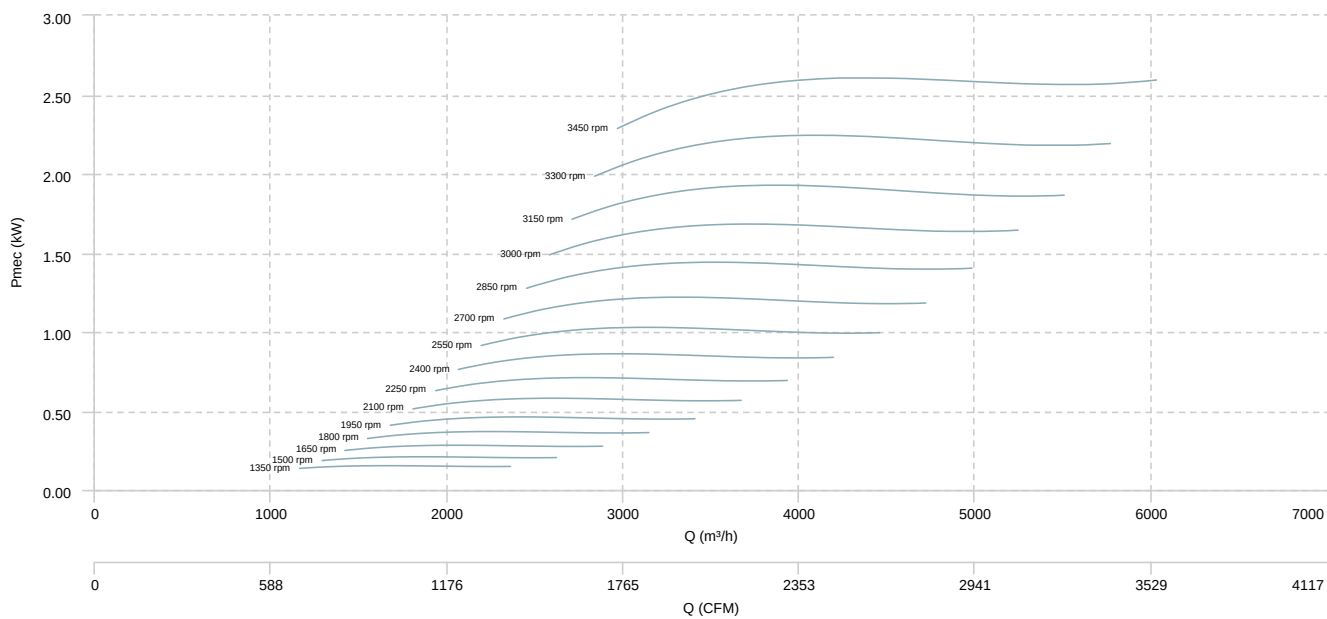


MTRL 310

AIR FLOW - PRESSURE

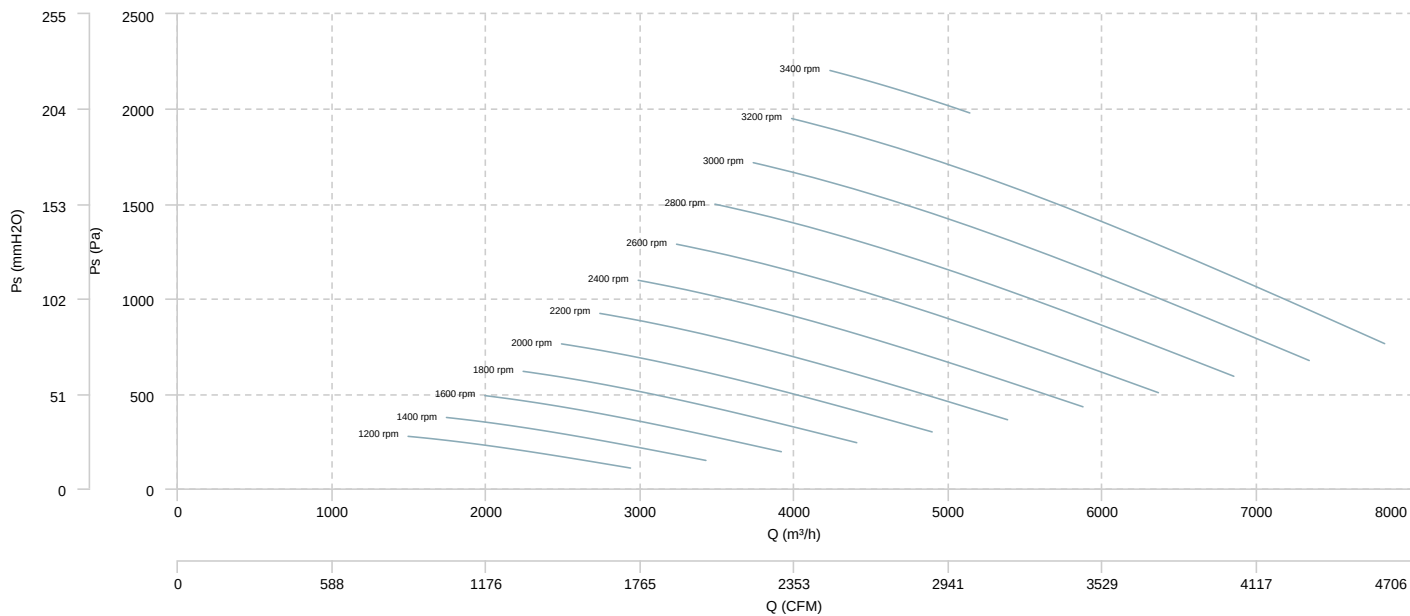


AIR FLOW - MECHANICAL POWER

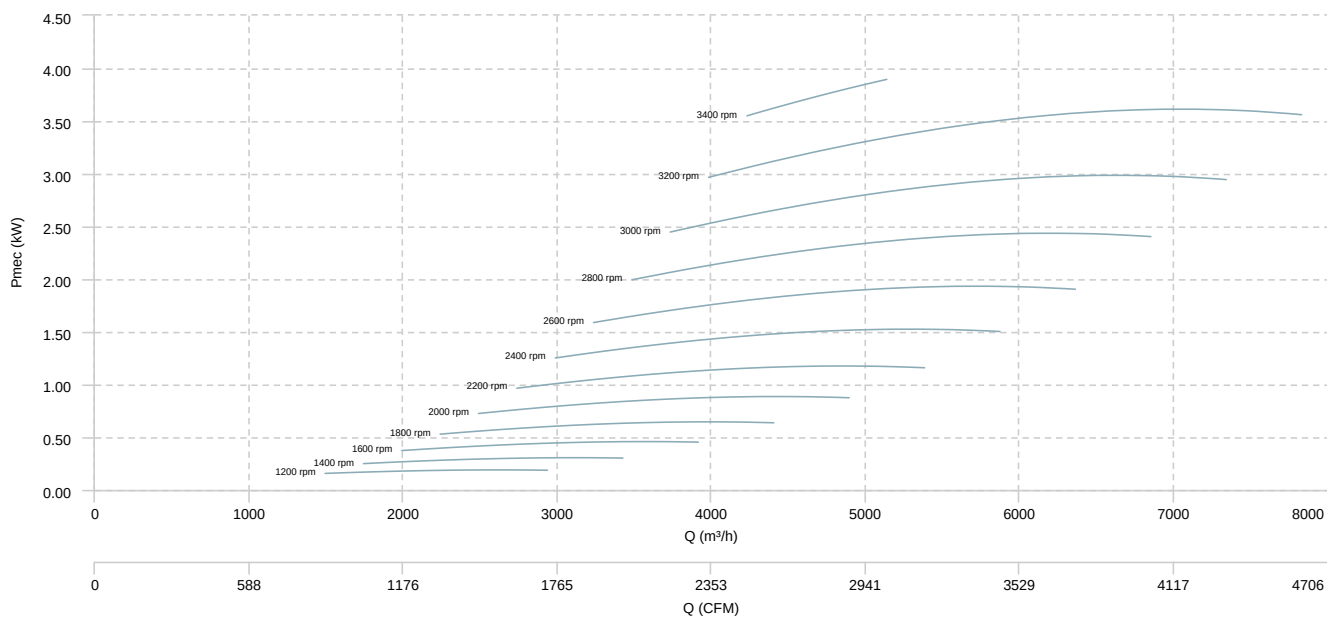


MTL 350

AIR FLOW - PRESSURE

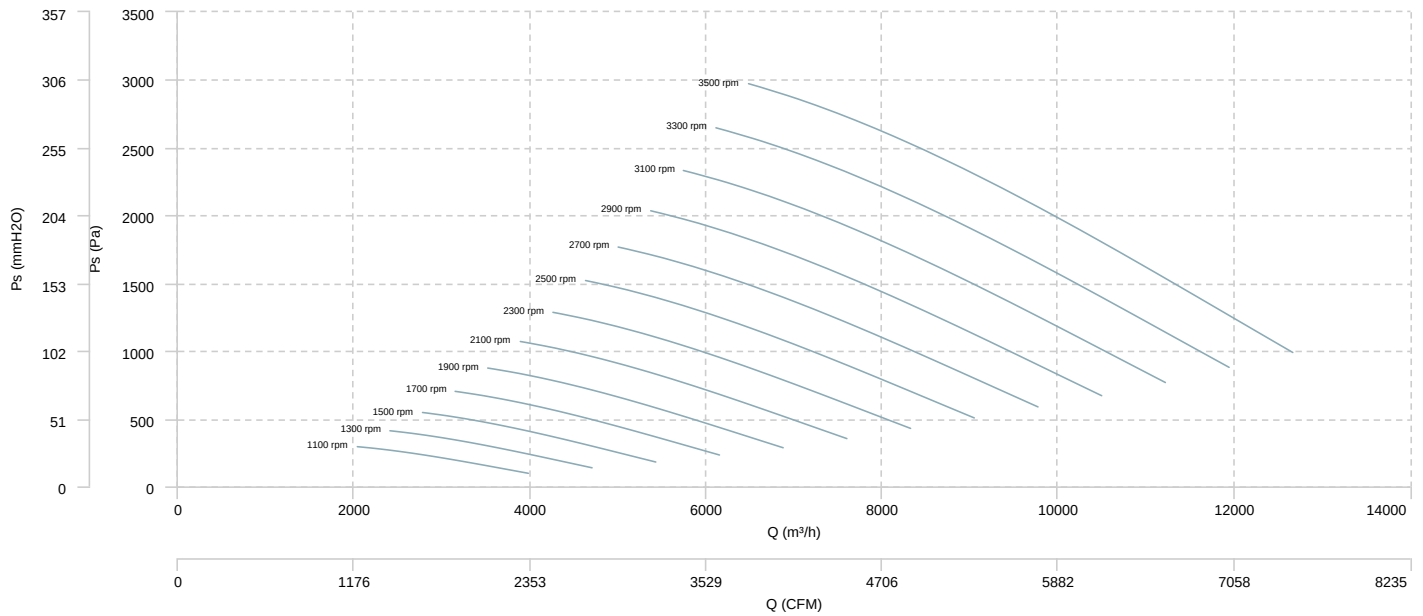


AIR FLOW - MECHANICAL POWER

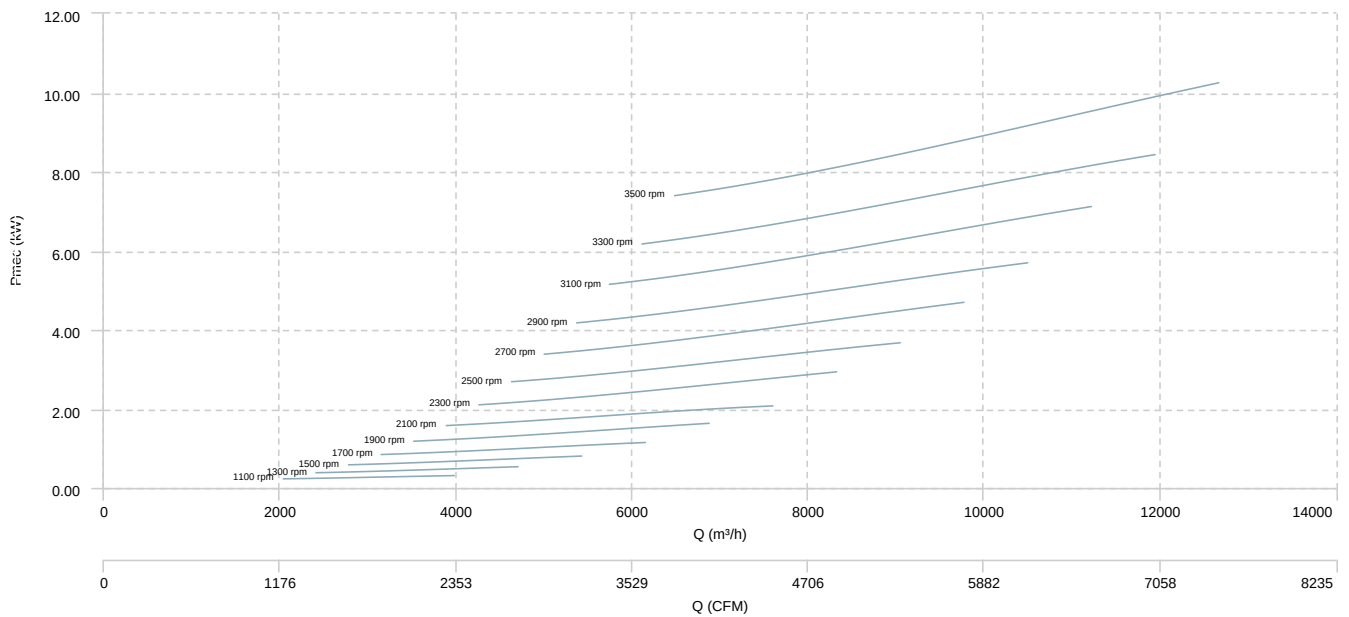


MTRL 400

AIR FLOW - PRESSURE

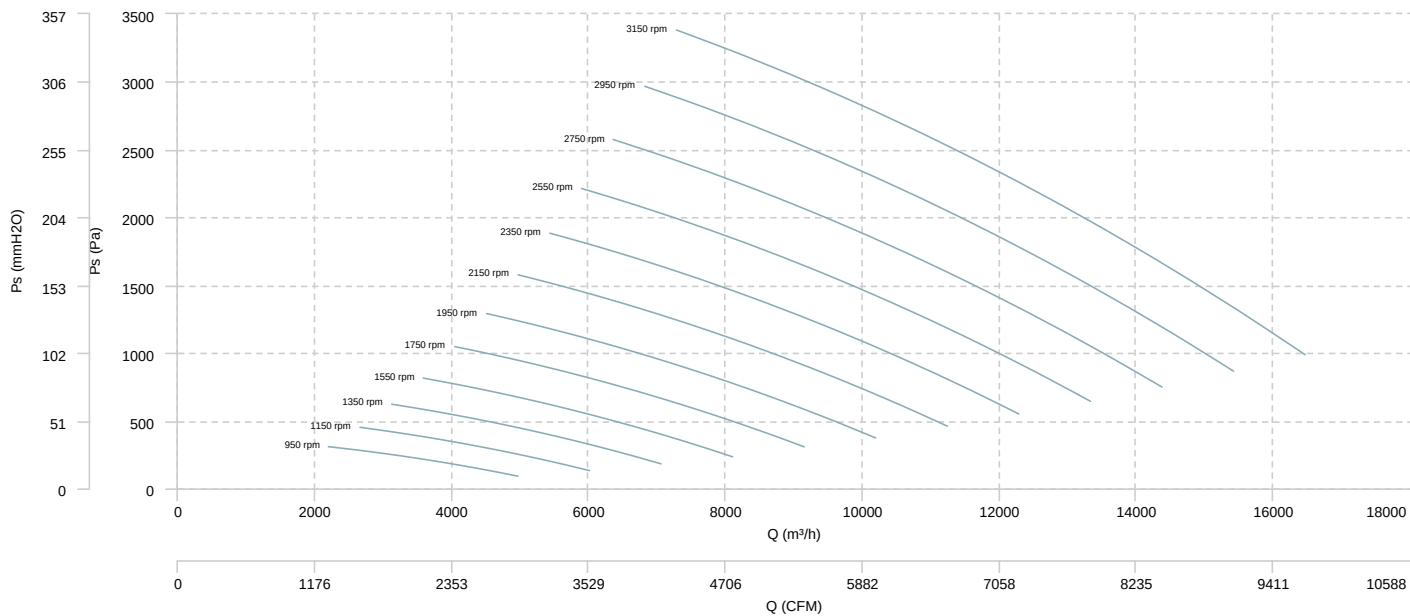


AIR FLOW - MECHANICAL POWER

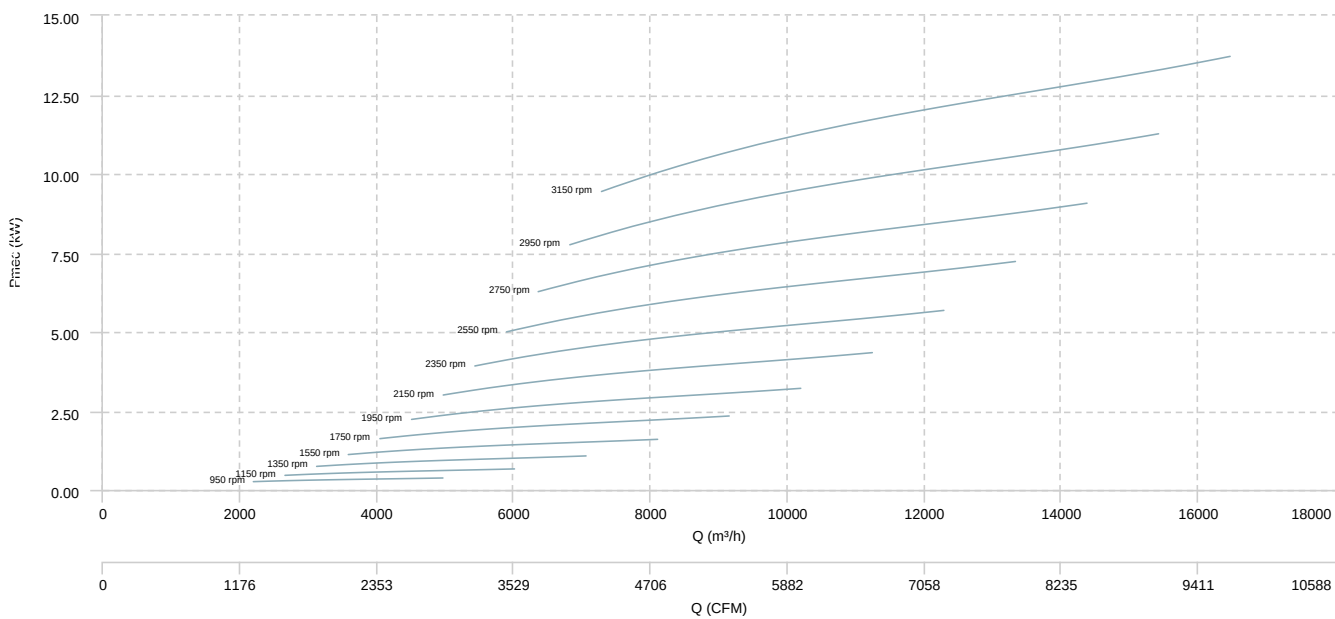


MTRL 450

AIR FLOW - PRESSURE

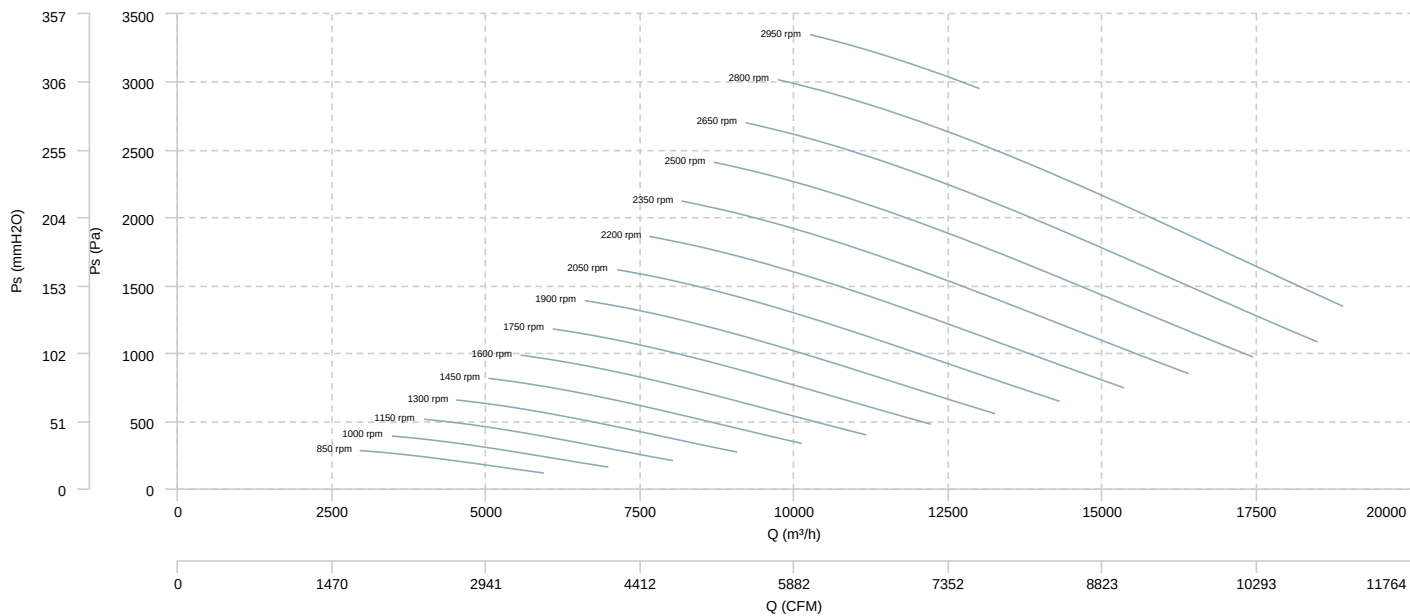


AIR FLOW - MECHANICAL POWER

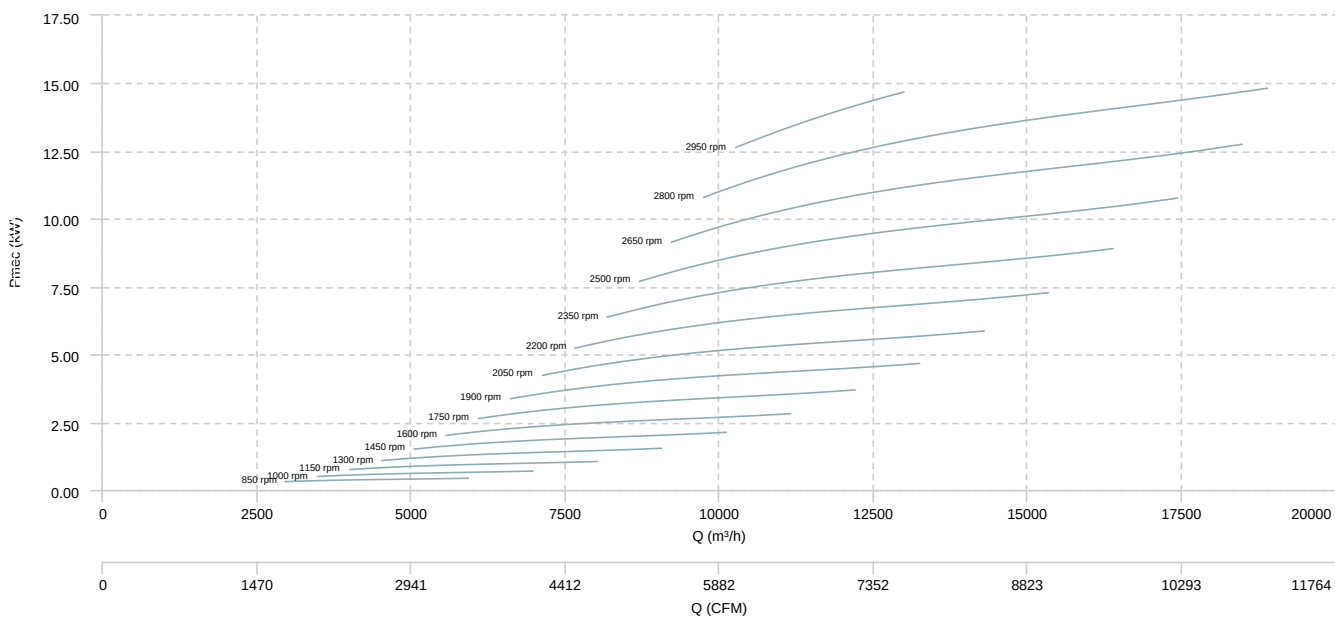


MTRL 500

AIR FLOW - PRESSURE

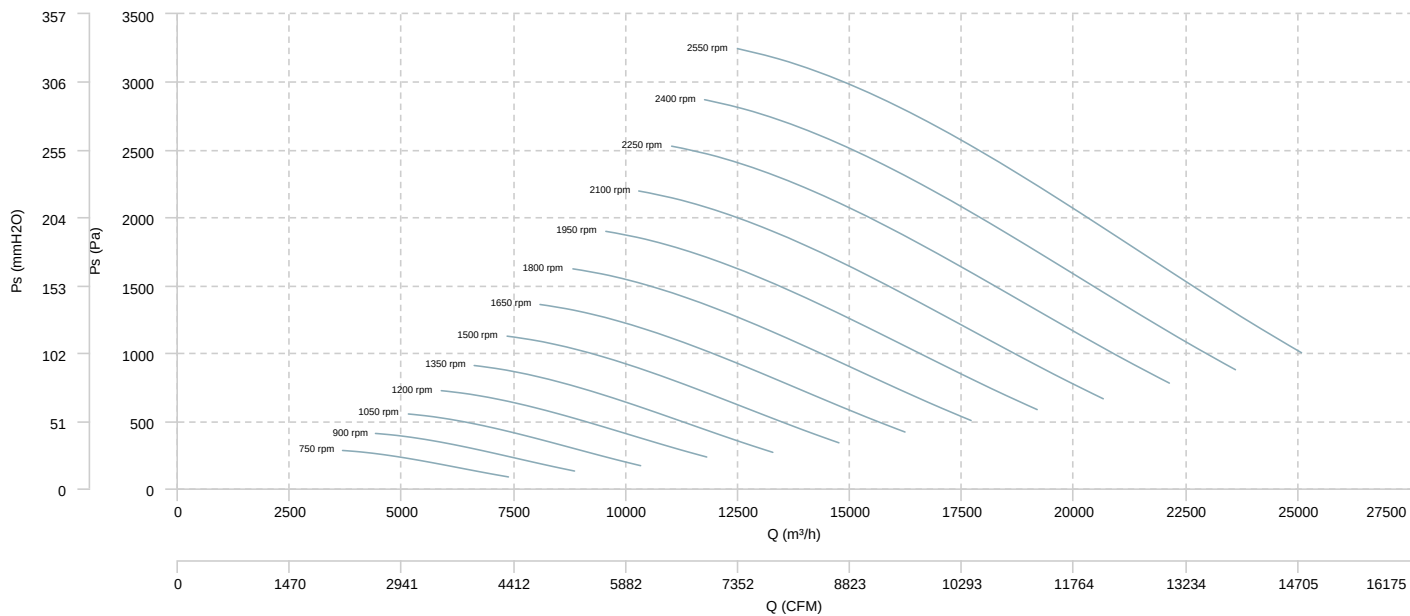


AIR FLOW - MECHANICAL POWER

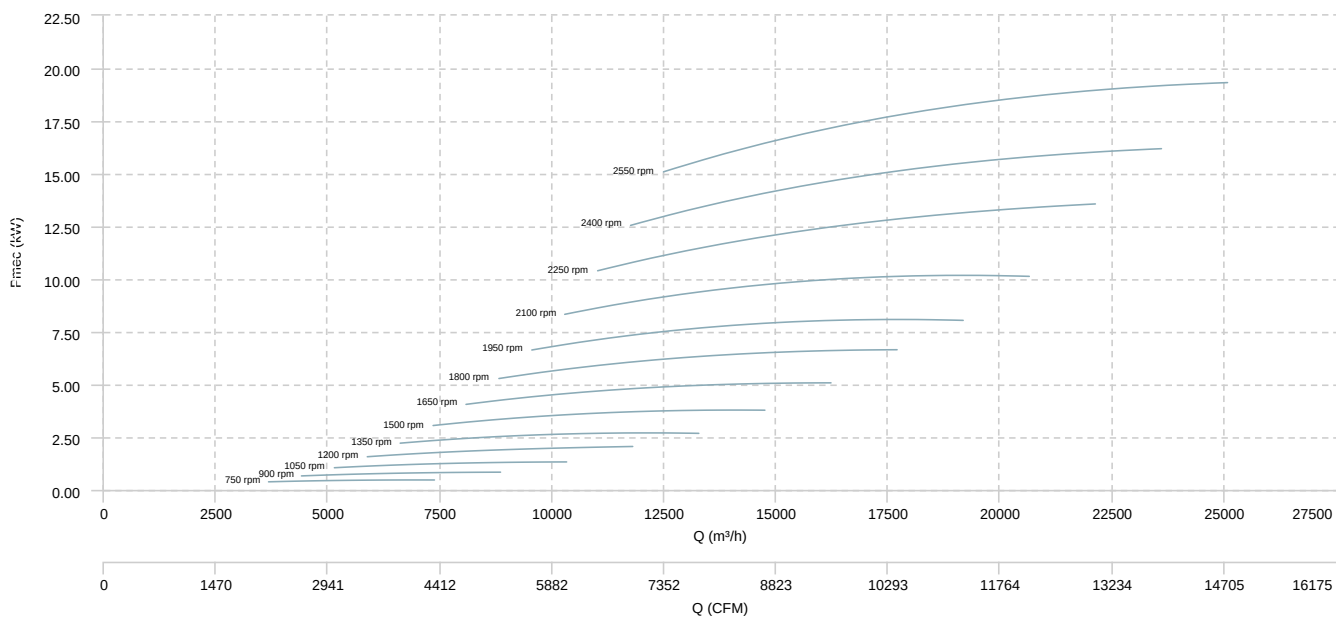


MTRL 560

AIR FLOW - PRESSURE

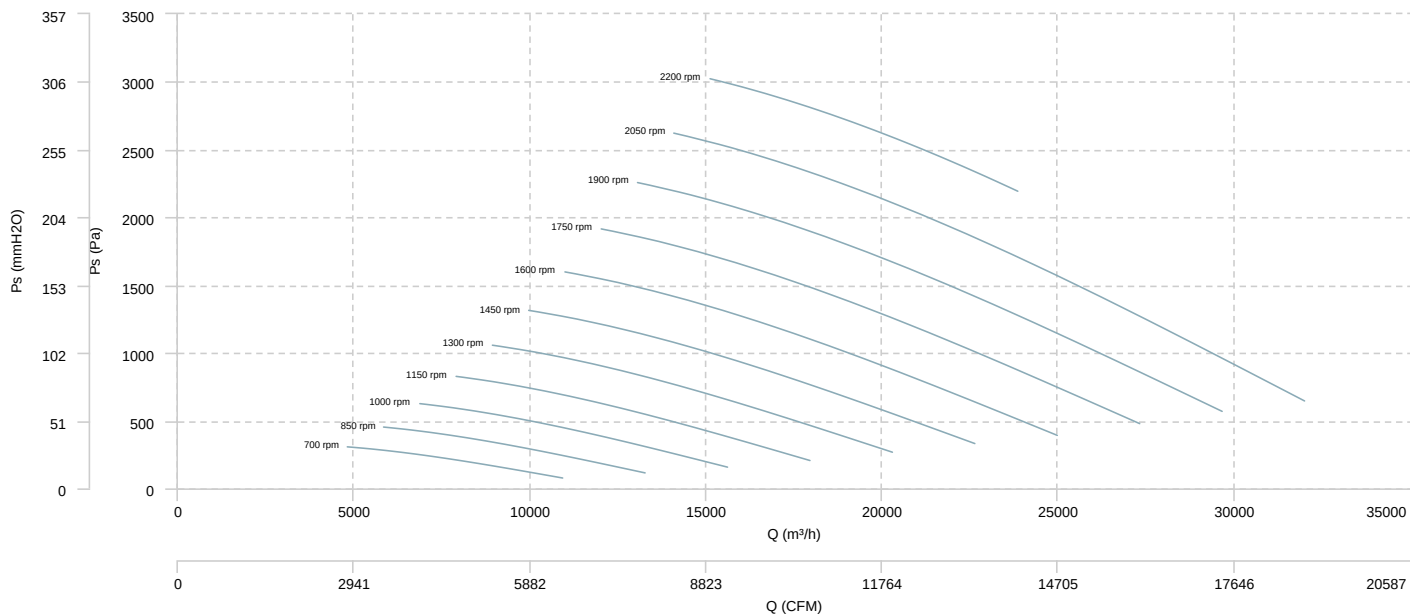


AIR FLOW - MECHANICAL POWER

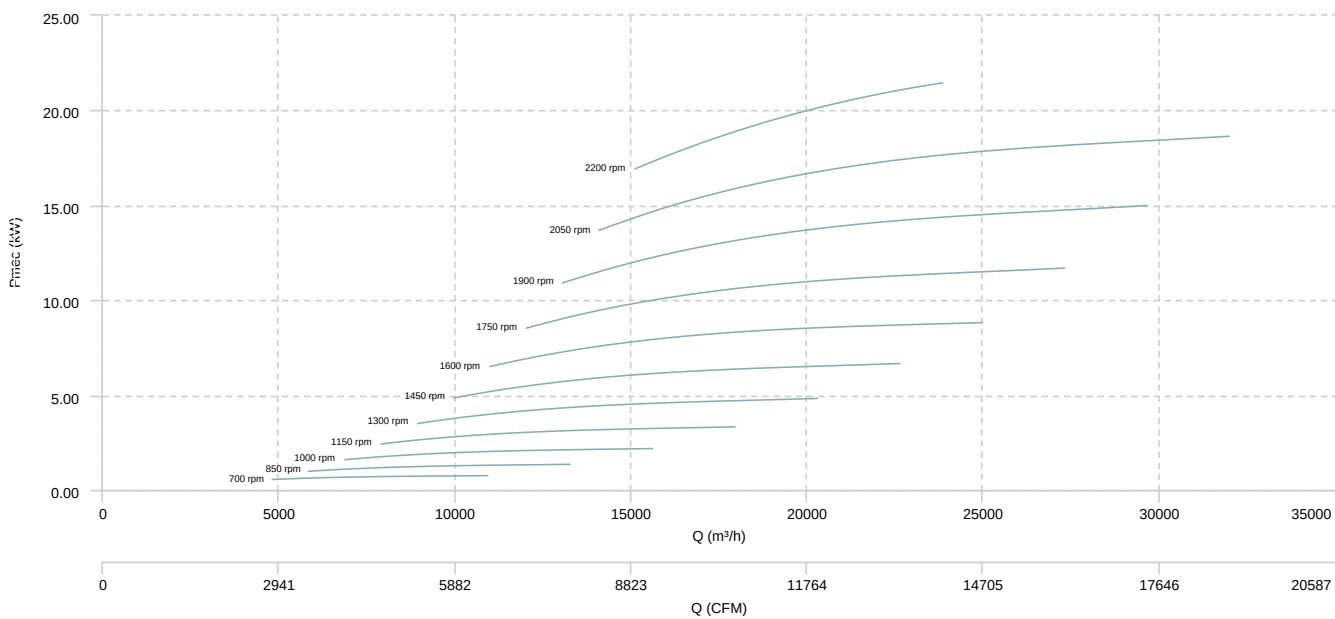


MTL 630

AIR FLOW - PRESSURE

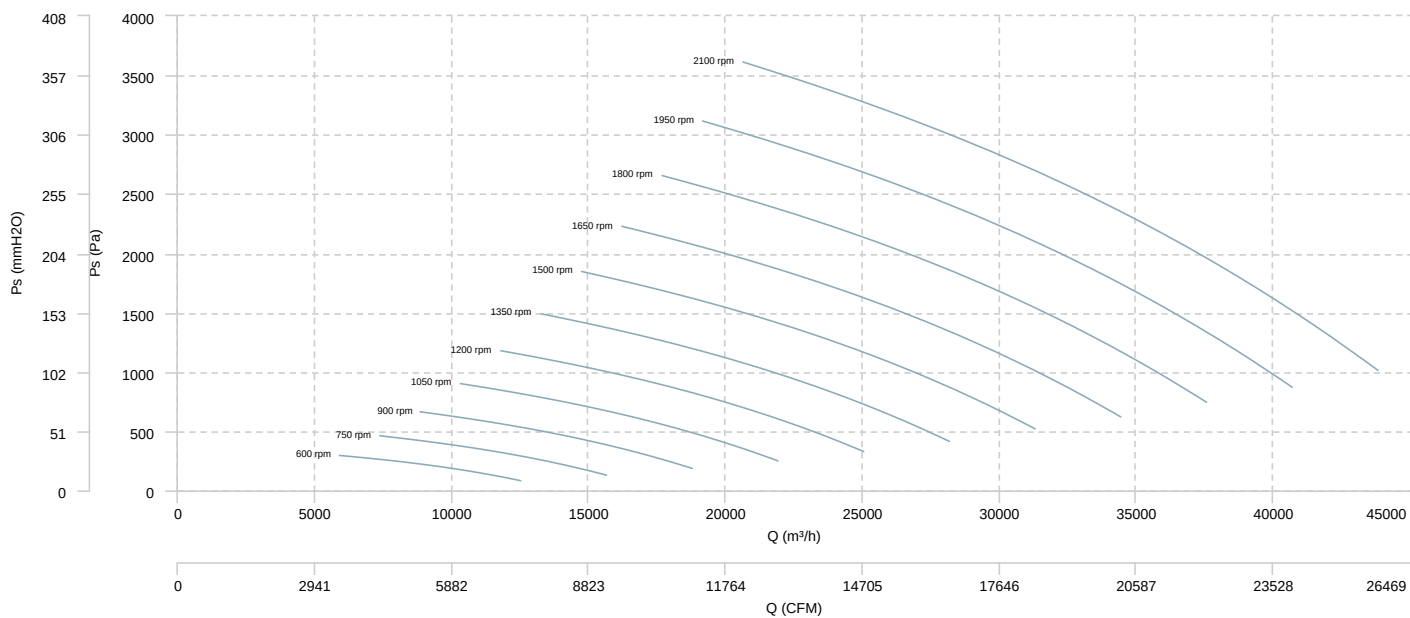


AIR FLOW - MECHANICAL POWER

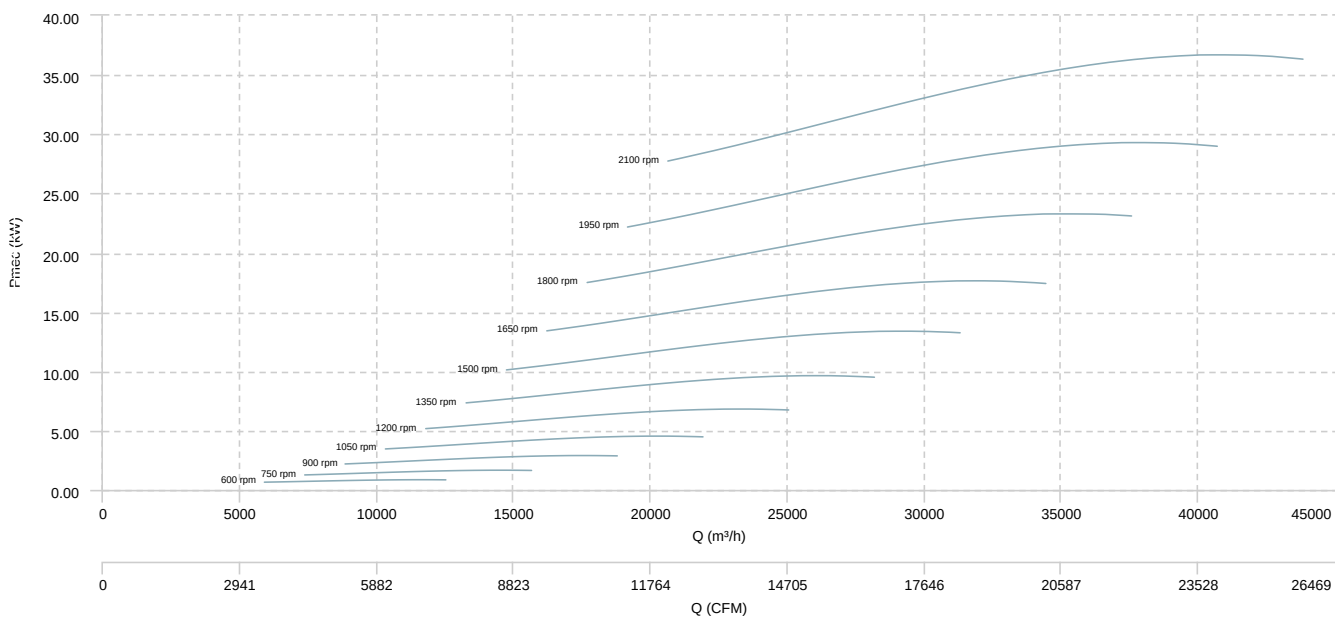


MTRL 710

AIR FLOW - PRESSURE

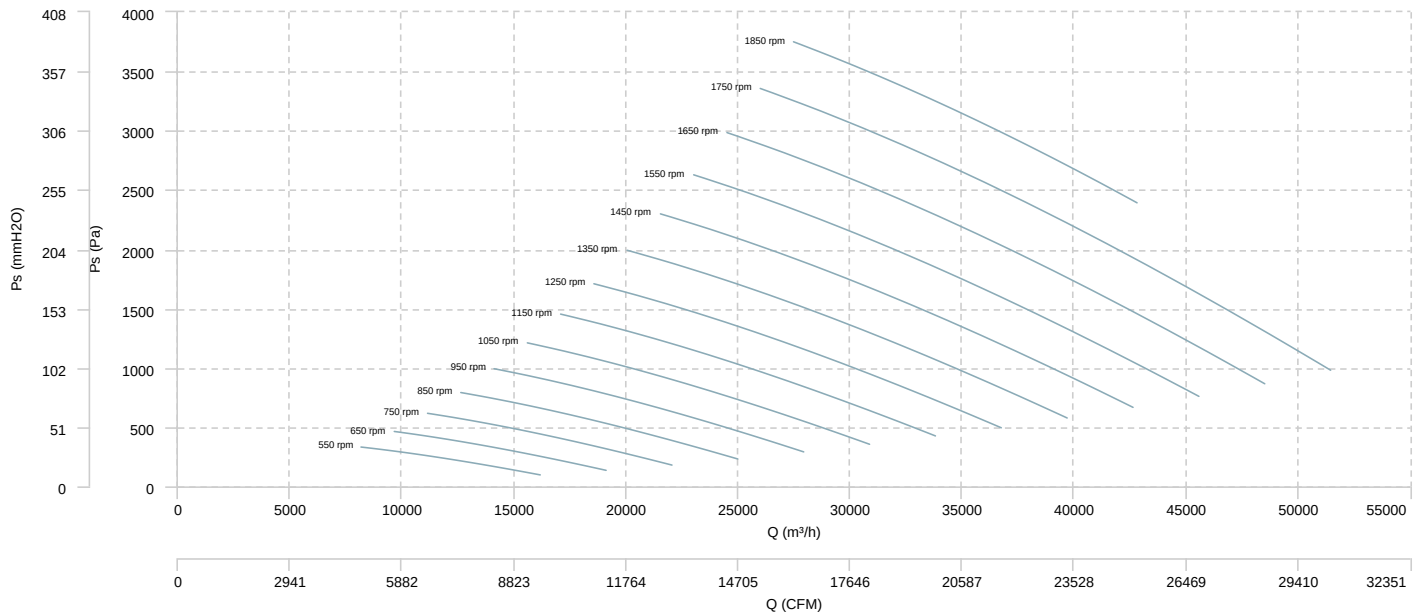


AIR FLOW - MECHANICAL POWER

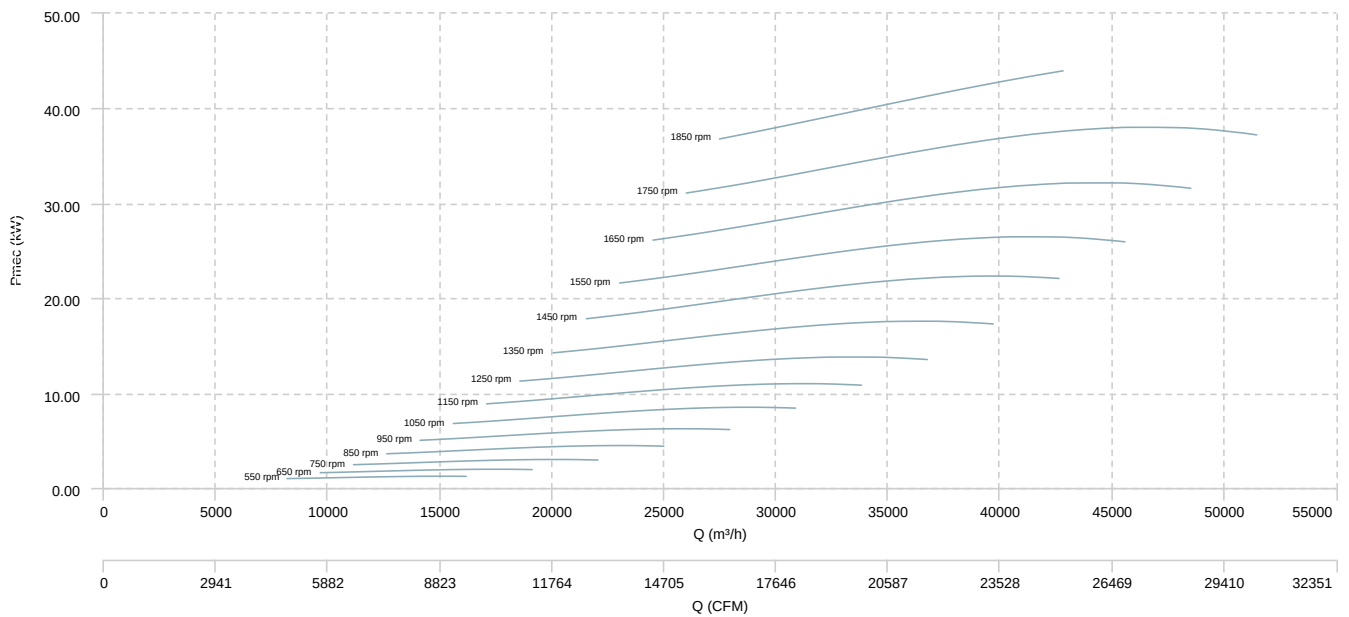


MTRL 800

AIR FLOW - PRESSURE

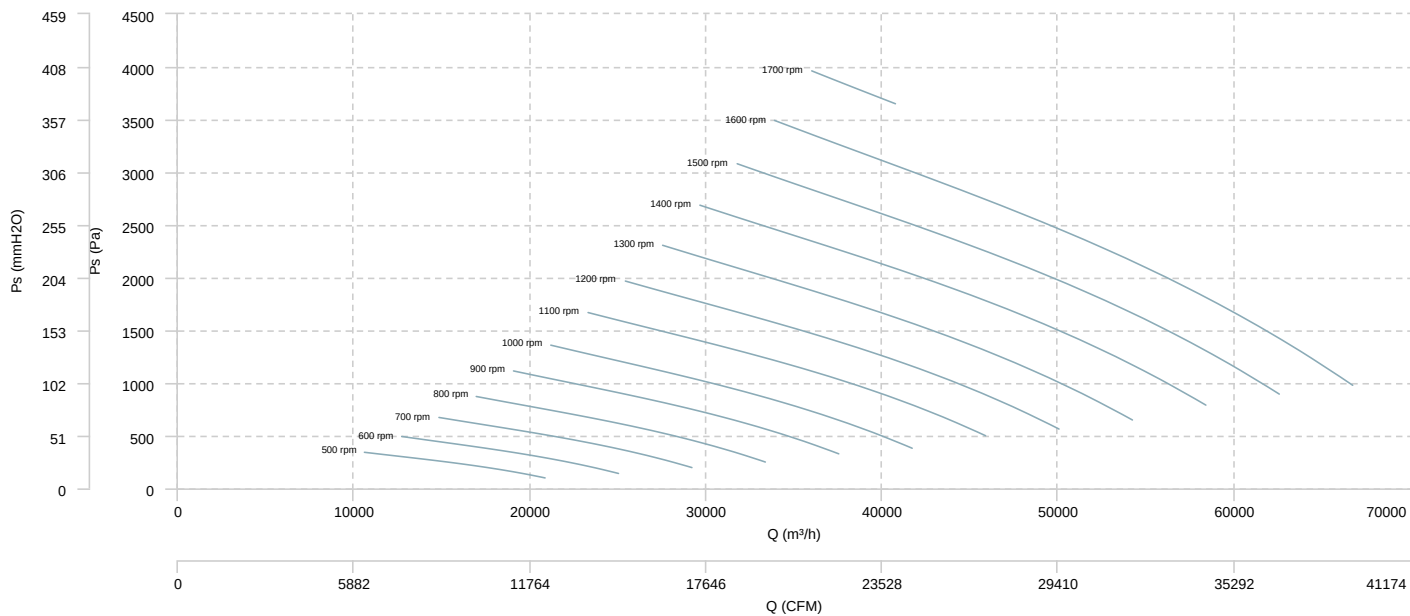


AIR FLOW - MECHANICAL POWER

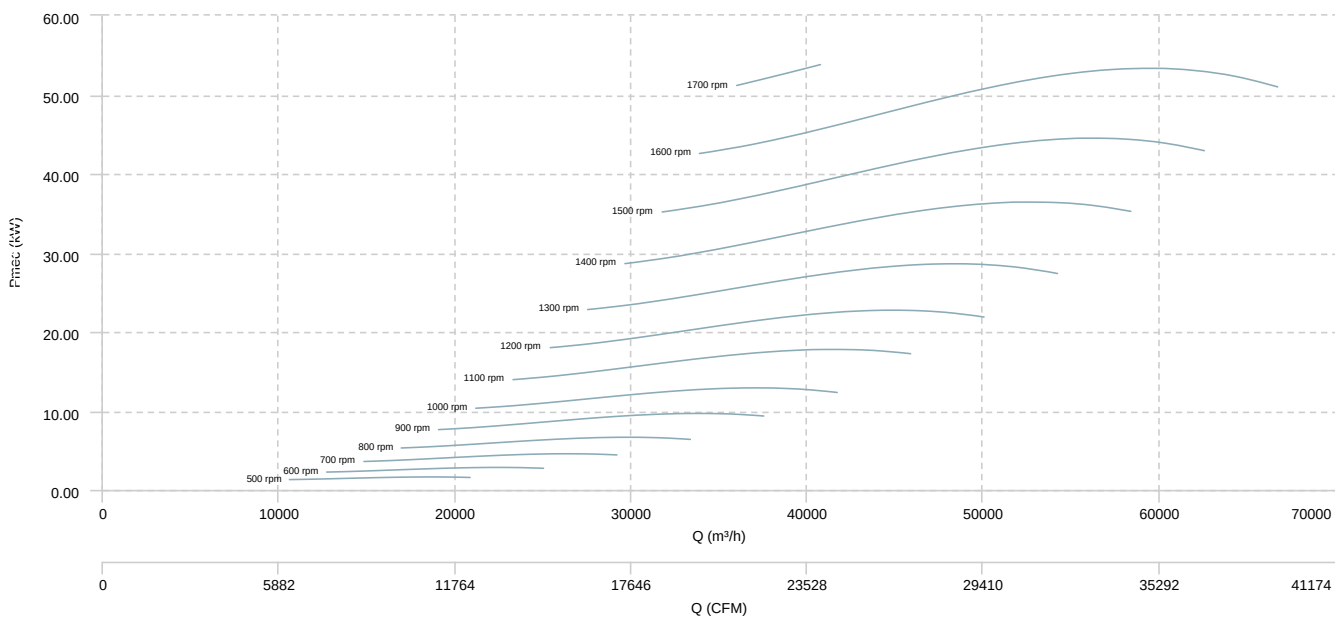


MTRL 900

AIR FLOW - PRESSURE

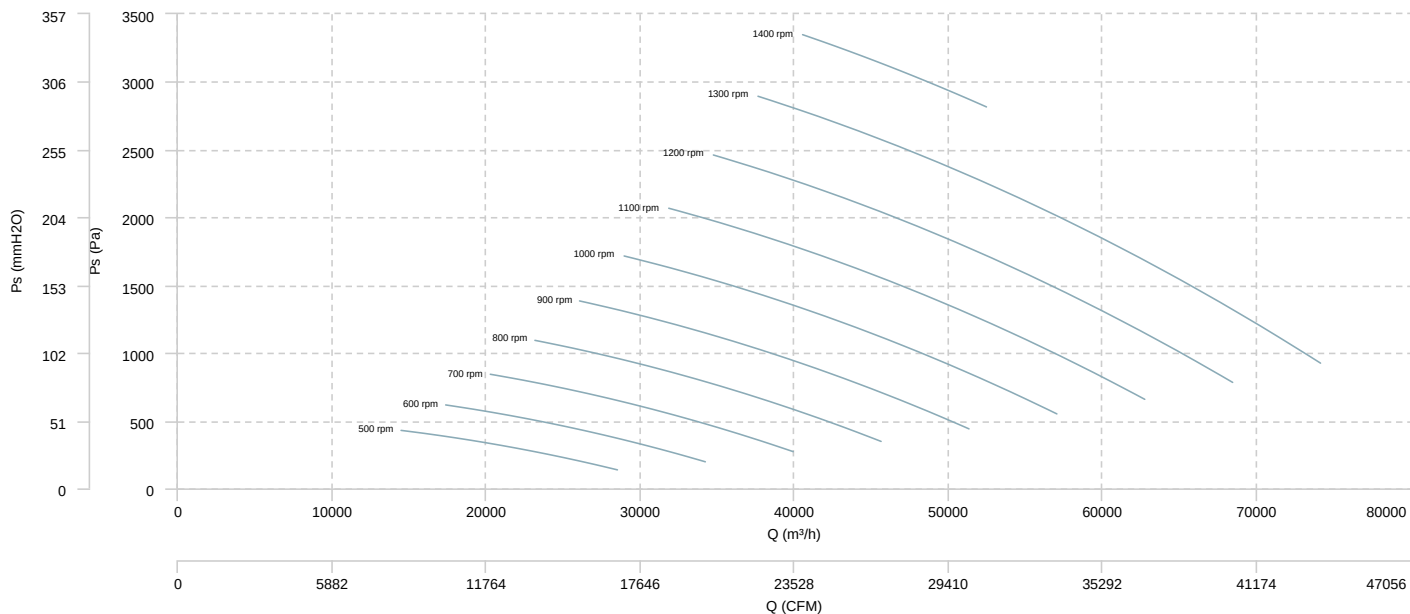


AIR FLOW - MECHANICAL POWER

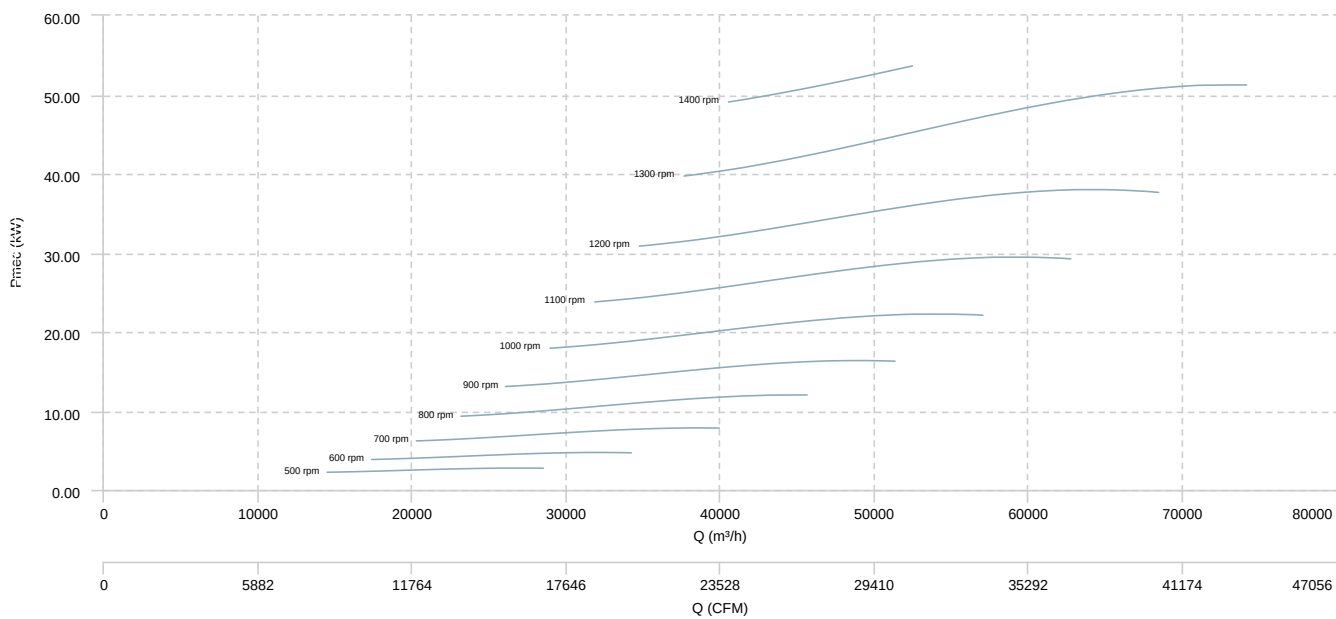


MTRL 1000

AIR FLOW - PRESSURE

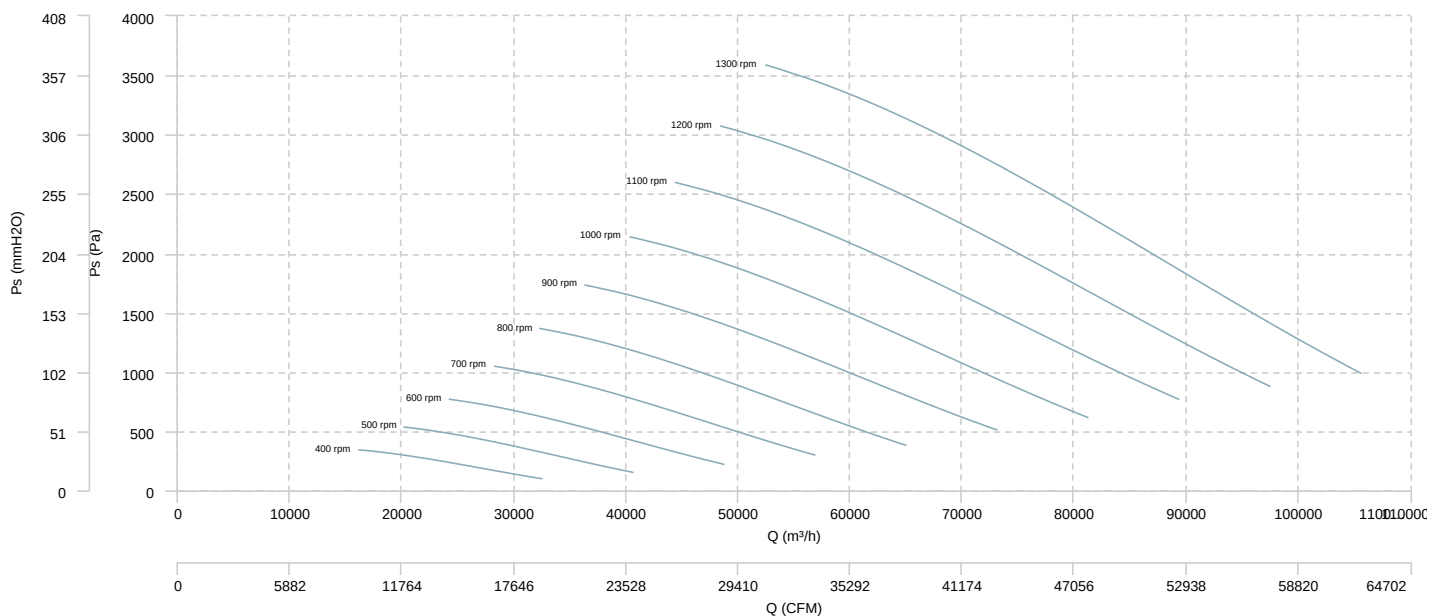


AIR FLOW - MECHANICAL POWER

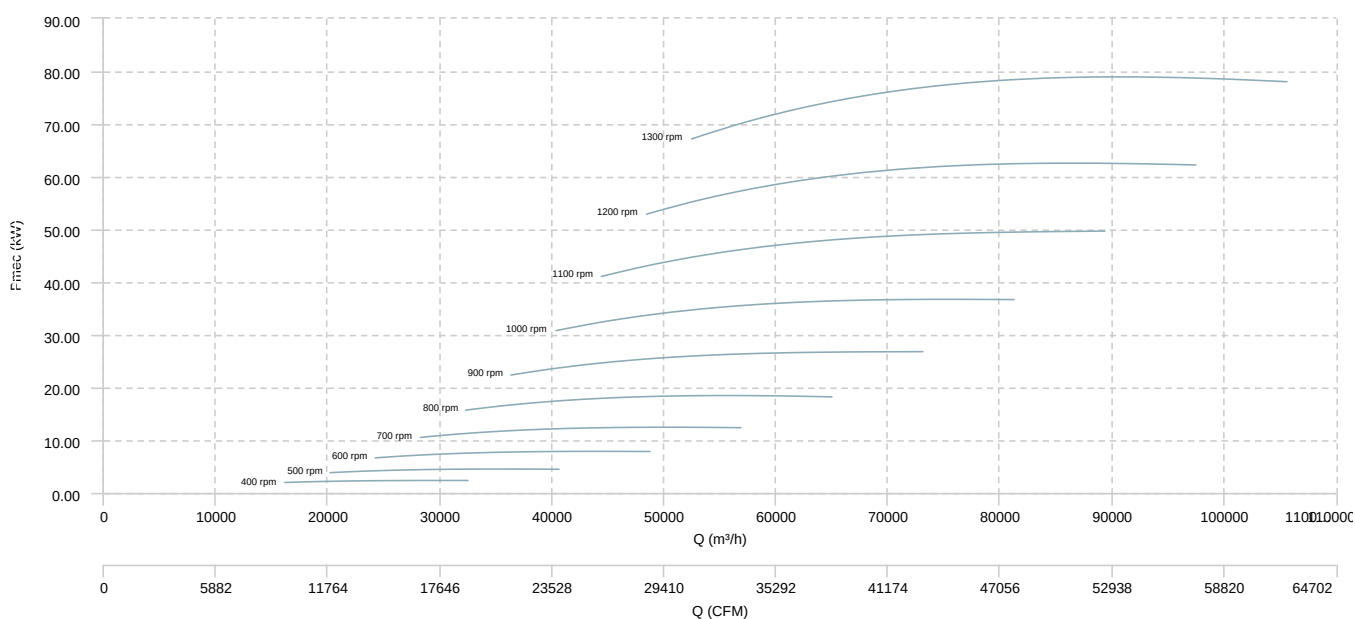


MTRL 1120

AIR FLOW - PRESSURE

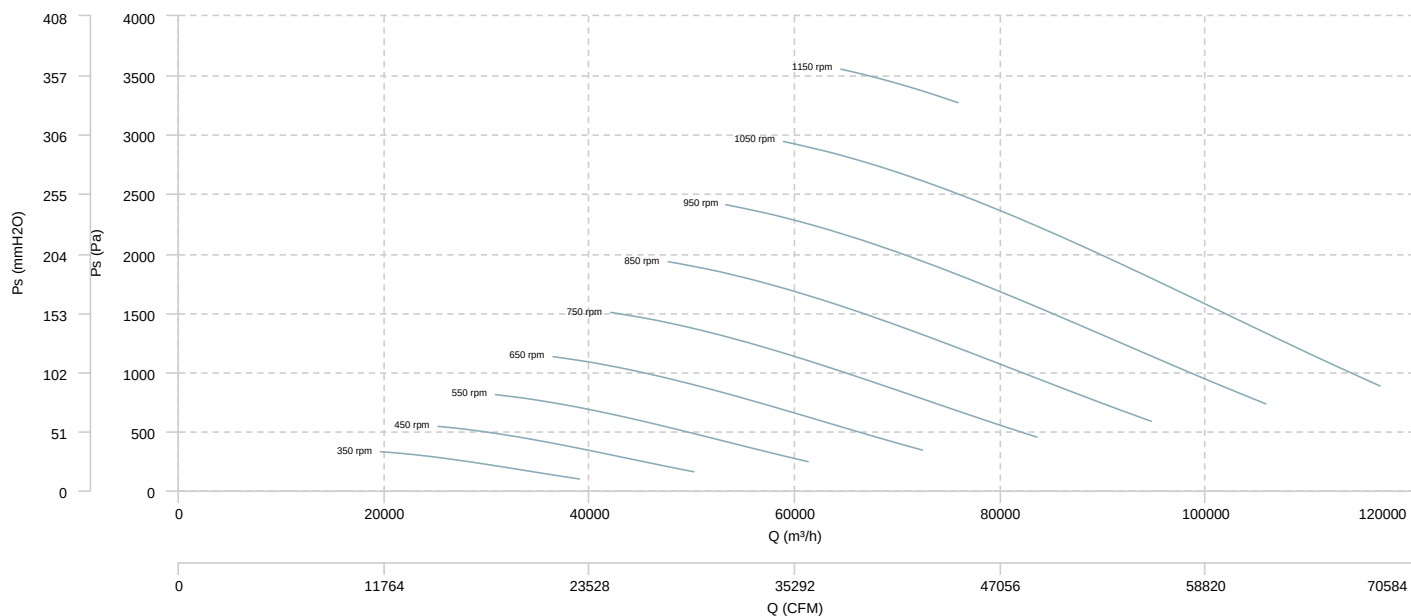


AIR FLOW - MECHANICAL POWER

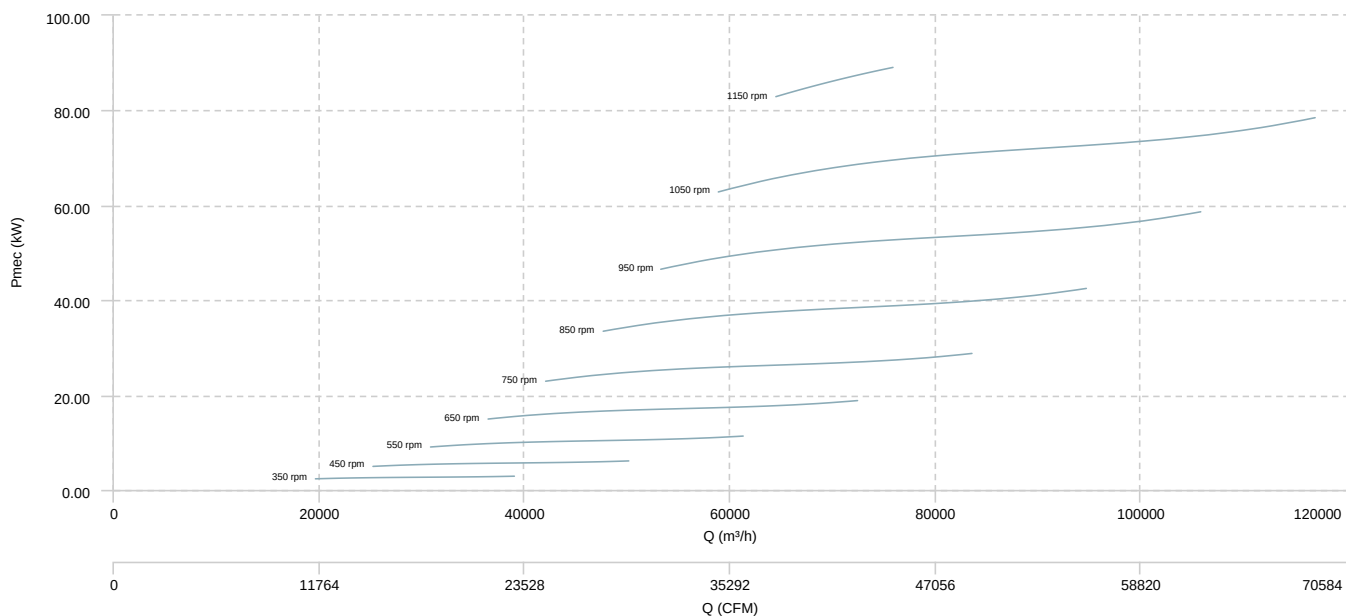


MTRL 1250

AIR FLOW - PRESSURE

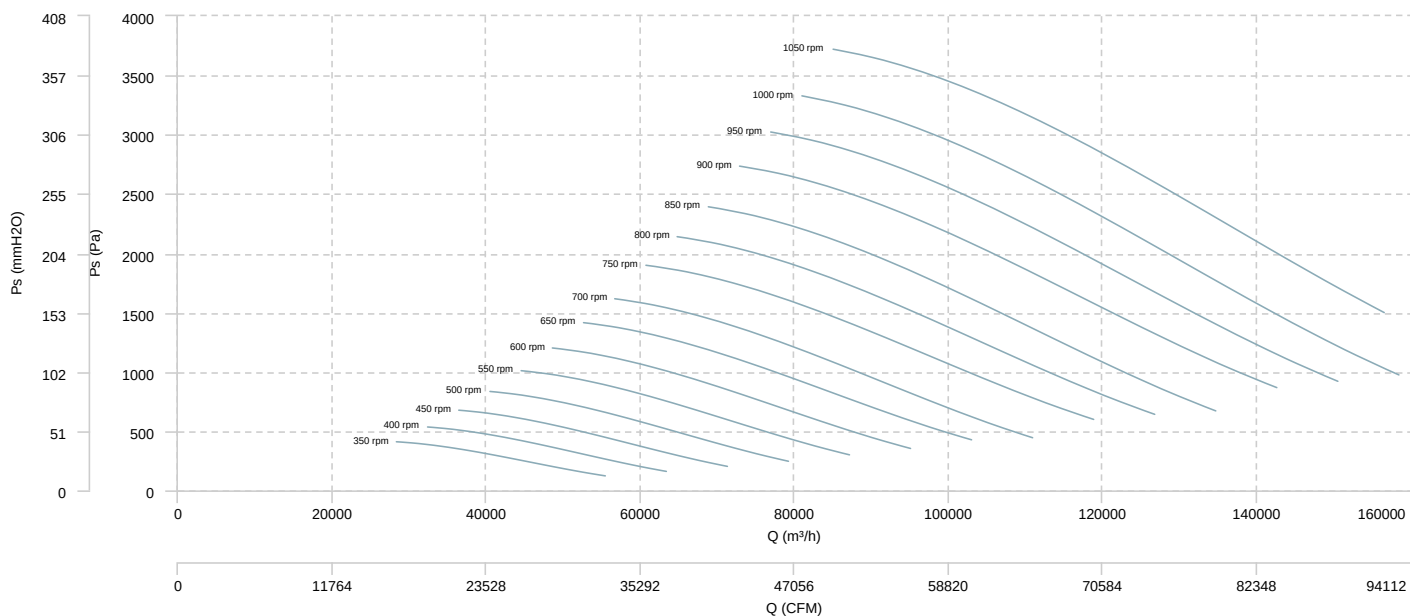


AIR FLOW - MECHANICAL POWER

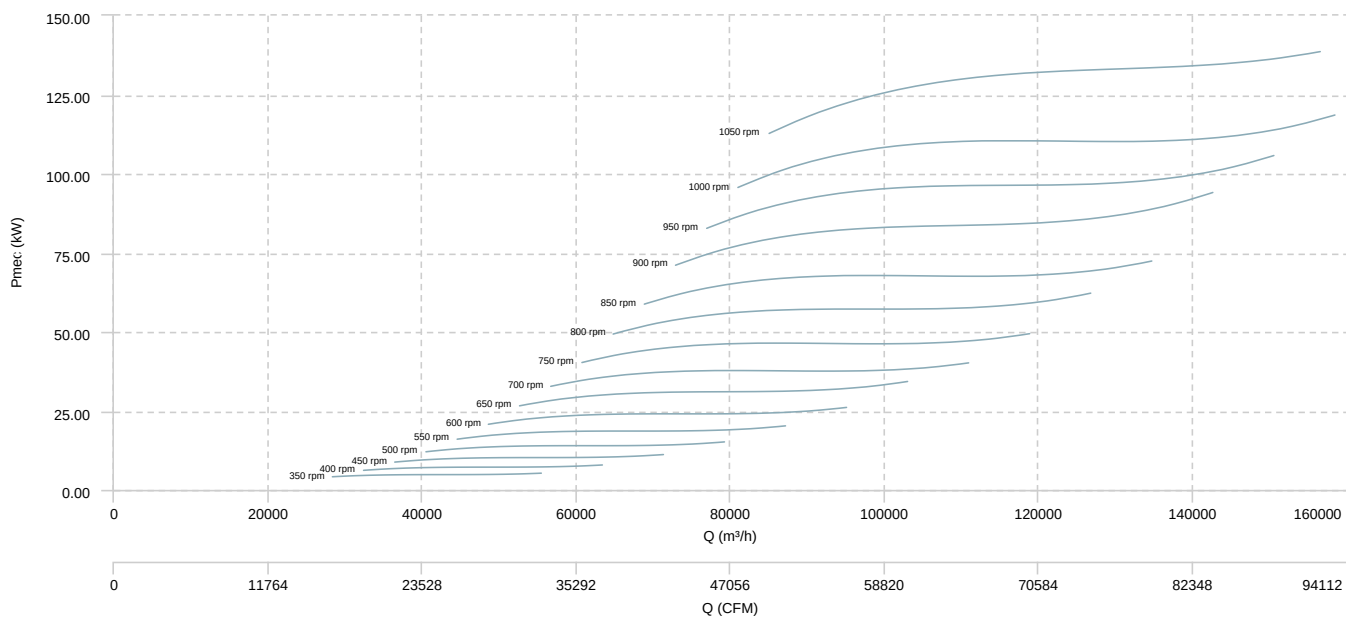


MTRL 1400

AIR FLOW - PRESSURE

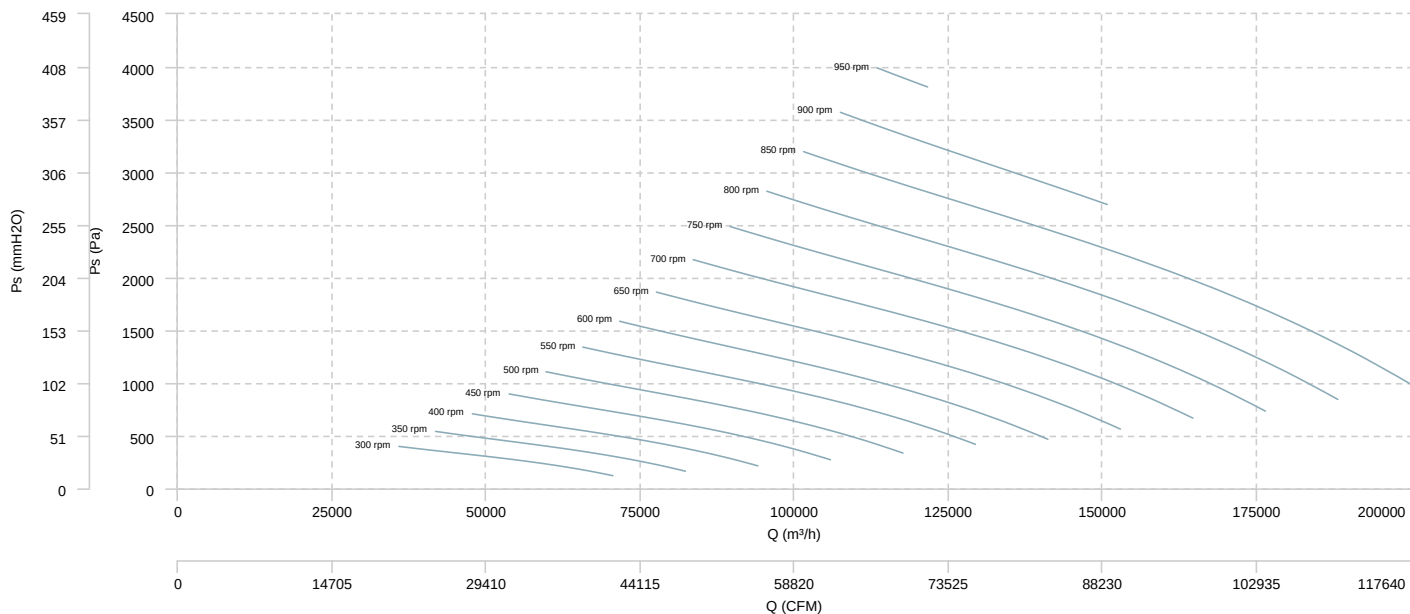


AIR FLOW - MECHANICAL POWER

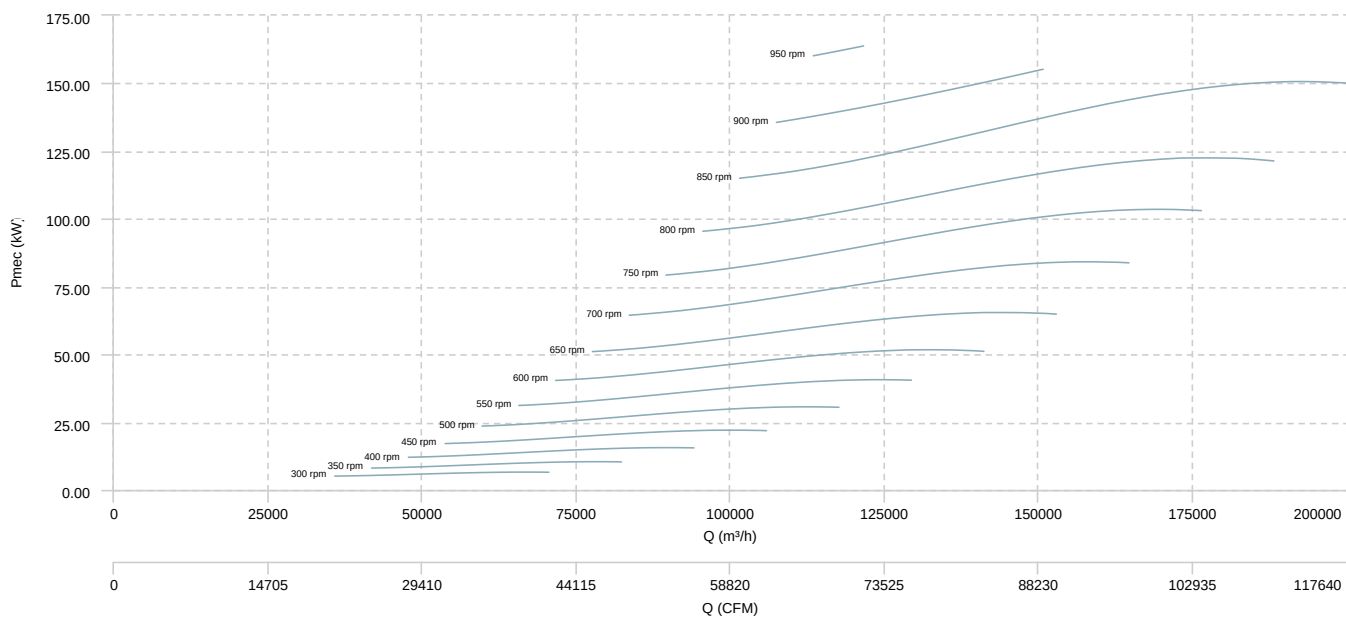


MTRL 1600

AIR FLOW - PRESSURE

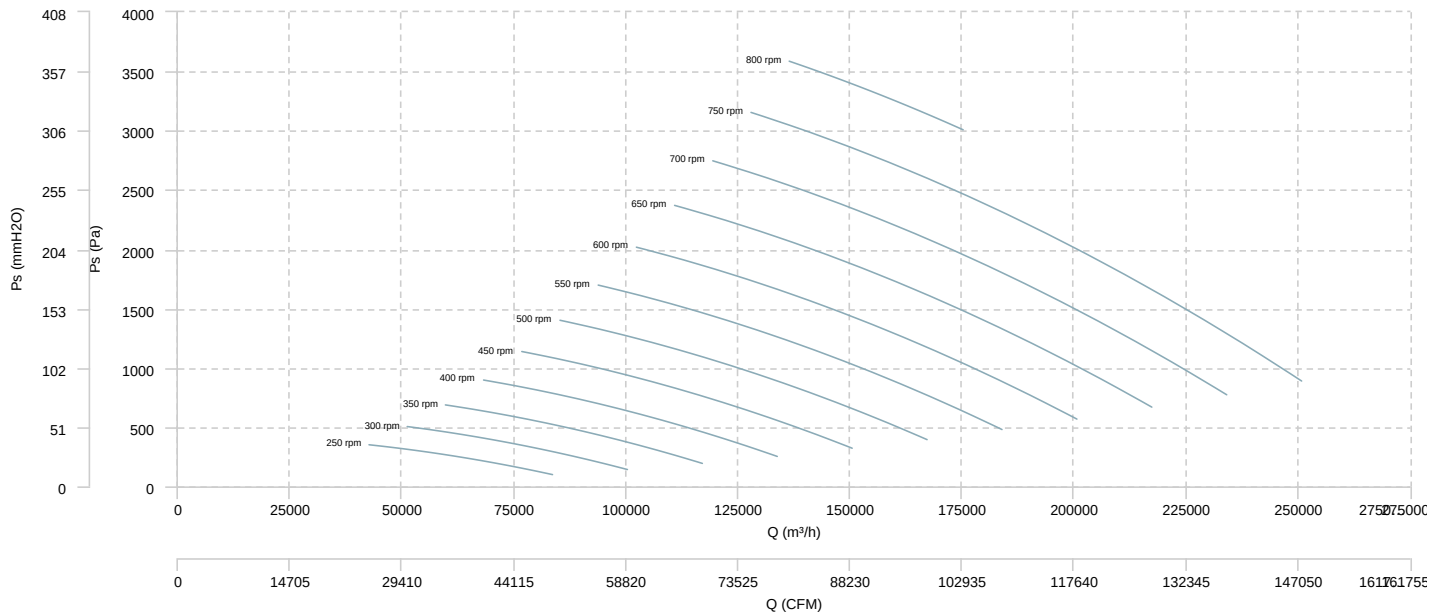


AIR FLOW - MECHANICAL POWER

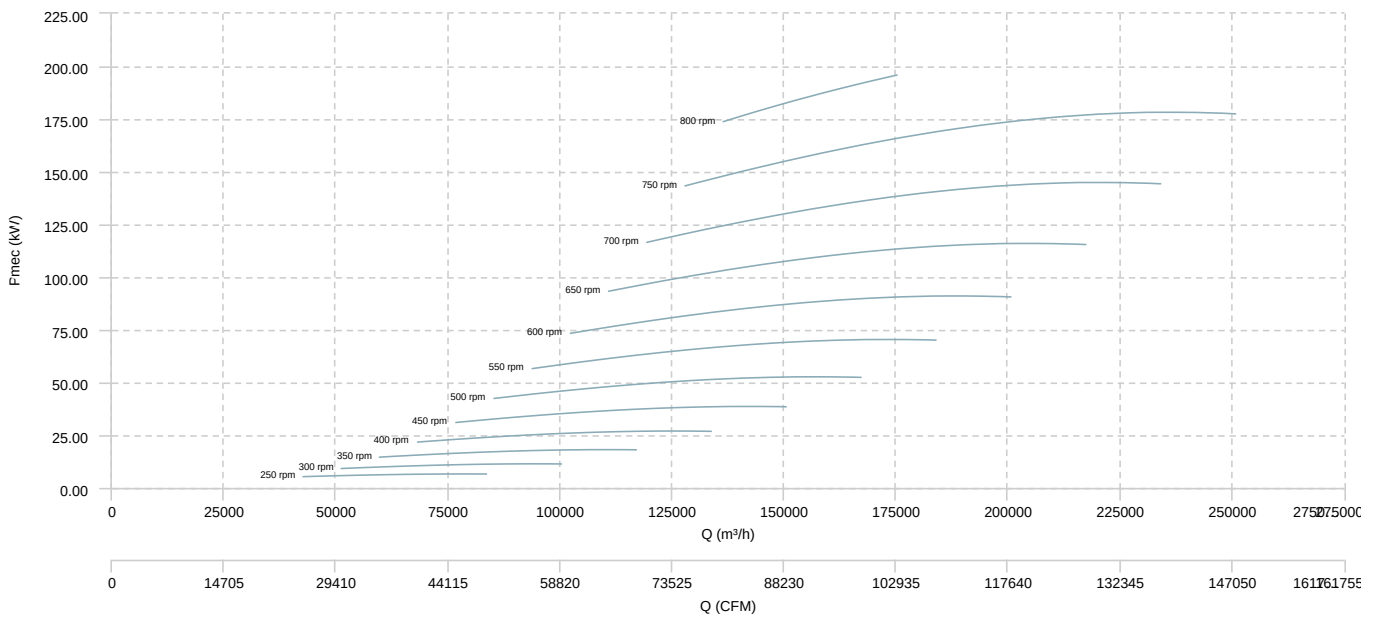


MTRL 1800

AIR FLOW - PRESSURE

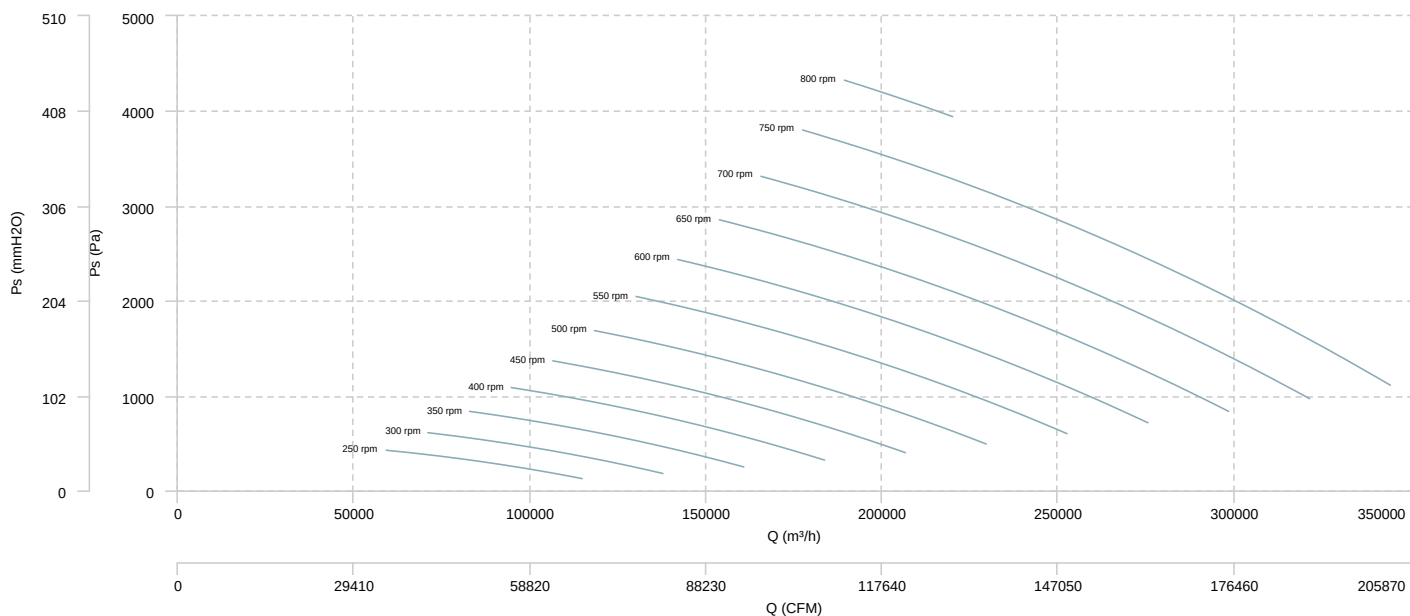


AIR FLOW - MECHANICAL POWER

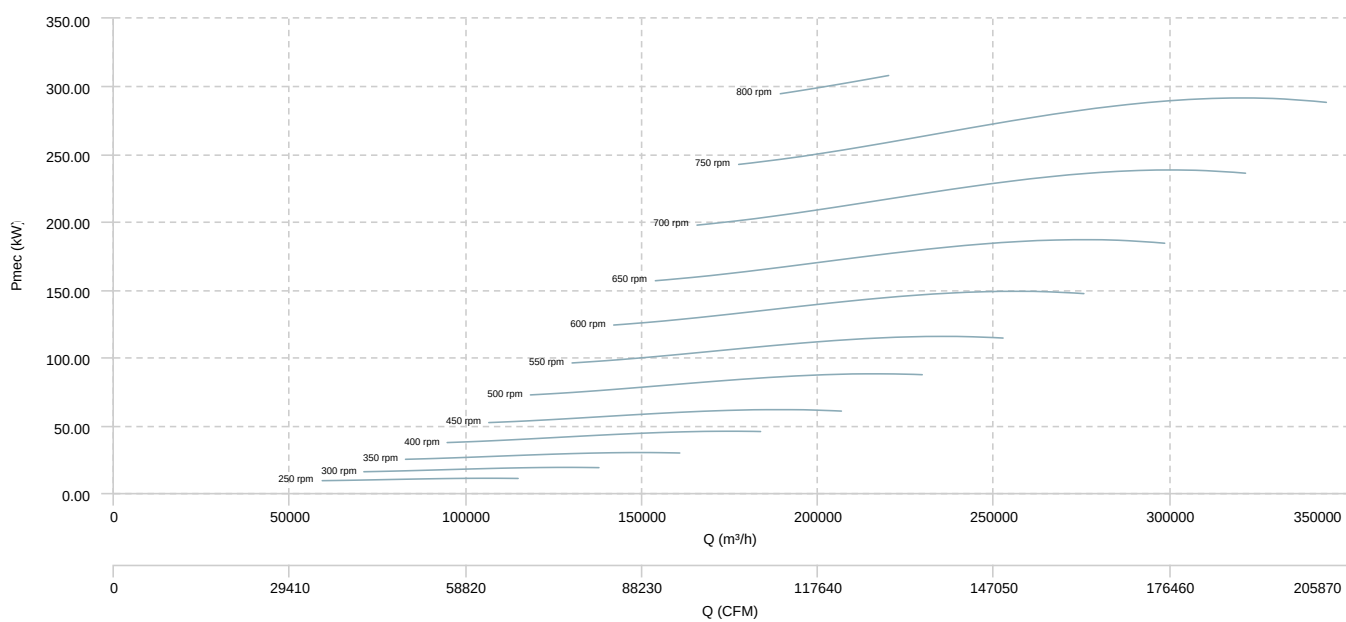


MTRL 2000

AIR FLOW - PRESSURE



AIR FLOW - MECHANICAL POWER



Sound data

Sound power Lw dB (A)										
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
MTRL 250 (1700 rpm)	Inlet	42	54	61	65	66	61	55	52	70
MTRL 280 (1500 rpm)	Inlet	56	62	66	67	63	56	53	71	-
MTRL 310 (1350 rpm)	Inlet	42	54	61	65	66	61	54	51	70
MTRL 350 (1200 rpm)	Inlet	44	56	62	66	67	63	56	53	71
MTRL 400 (1100 rpm)	Inlet	46	58	64	68	69	64	58	55	73
MTRL 450 (950 rpm)	Inlet	48	60	66	70	71	67	60	57	75
MTRL 500 (850 rpm)	Inlet	47	59	66	70	71	66	59	56	75
MTRL 560 (750 rpm)	Inlet	49	61	67	71	72	67	61	58	76
MTRL 630 (700 rpm)	Inlet	49	61	68	72	73	68	61	58	77
MTRL 710 (600 rpm)	Inlet	49	61	68	72	73	68	61	58	77
MTRL 800 (550 rpm)	Inlet	50	62	69	73	74	69	63	60	78
MTRL 900 (500 rpm)	Inlet	51	63	70	74	75	70	64	61	79
MTRL 1000 (500 rpm)	Inlet	54	66	72	76	77	73	66	63	81
MTRL 1120 (400 rpm)	Inlet	52	64	70	74	75	71	64	61	79
MTRL 1250 (350 rpm)	Inlet	52	64	70	74	75	70	64	61	79
MTRL 1400 (350 rpm)	Inlet	55	67	73	77	78	73	67	64	82
MTRL 1600 (300 rpm)	Inlet	54	66	73	77	78	73	67	64	82
MTRL 1800 (250 rpm)	Inlet	53	65	72	76	77	72	66	63	81
MTRL 2000 (250 rpm)	Inlet	56	68	75	79	80	75	69	66	84

Notes:

* To calculate the sound power level at different rpm from those indicated above, use the following formula:

$$Lw \text{ dB(A)}_{rpmA} = Lw \text{ dB(A)}_{rpmB} + 52.5 \cdot \log_{10} \frac{rpmA}{rpmB}$$