

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

GENERAL

AIRA DU / SD units are a natural draft gas fired appliance, capable of supplying indirect gas heating and direct air ventilation. AIRA units are produced in 9 different capacities to suit a wide variety of installation requirements.

CABINET

The body is galvanised steel with stainless steel burners, heat exchanger and draft diverter. Flues and flue cowls are marine grade aluminium. Units have a marine grade aluminium weatherproof casing. Forklift tine channels and lifting lugs are provided on the underside of the single heat exchanger cabinets to facilitate transport and lifting. Contact Seeley International for special lifting requirements for dual heat exchanger units. Components are effectively treated to ensure corrosion resistance and mechanical fasteners are zinc coated, stainless steel or aluminium. Connection surfaces are provided for outlet supply air, to be fitted using established industry practices.

FAN & MOTOR

The standard fan is a forward curved blower constructed from steel. Units not installed in ductwork are typically optioned with an axial fan due to the low pressure drop. Fan motors are mounted externally to the blower and connect with a set of pulleys.

PULLEYS

A standard set of pulleys is supplied with the unit for the nominated pressure drop. Variations in pressure drop outside of the standard pulley set are to be fitted by the installer. All pulleys are of steel construction with taper lock mounting.

MAIN CONNECTION DUCT

A 40mm wide raw edge flange is provided for duct connections.

DAMPERS

All DU/SD units are supplied with fixed position adjustable galvanised steel dampeners.

ELECTRICAL CONTROL

The unit is equipped with an electrical control box to control the gas pilot, main valve, modulating valve and the operation of the blower. All units are fitted with high limit safety switches on the air inlet and outlet side, and an automatic fan switch to prevent overheating.

CONFIGURATION OPTIONS

Standard:

- 1. Weatherproof Enclosure Blower/No Blower

Options:

- 1. Left- or right-hand Gas Train
- 2. Natural Gas or LPG
- 3. BMS or Wall Switch

Dual heat exchanger units require 2 separate gas and electrical connections. Each connection shall have its own isolation valve.

- 1. SD51 (2 x SD26 1xRH 1xLH)
- 2. SD60 (2 x SD30 1xRH 1xLH)
- 3. SD70 (2 x SD35 1xRH 1xLH)

TYPE A COMPLIANCE

Not all AIRA DU and SD units are type A compliant. An accredited Type B certifier shall be engaged by the customer to certify each installation.

Type A Compliant		
MODEL	Natural Gas	LPG
DU12	YES	YES
DU16	YES	YES
SD26	YES	YES
SD30	YES	YES
SD35	YES	YES
SD40	YES	YES

USER CONTROL

Units can be fitted with either an ON/OFF wall switch, RLU or connected to a BMS system. BMS is the default option.

Interface for BMS:

Fan: ON/OFF or LOW/HIGH

Heat: ON/OFF

Modulation: 0-10VDC

A Wall Switch and Thermostat setup is optional.

Fan: ON/OFF

Heat: ON/OFF

GAS CONNECTION

Units are fitted with a 3/4" gas valve.



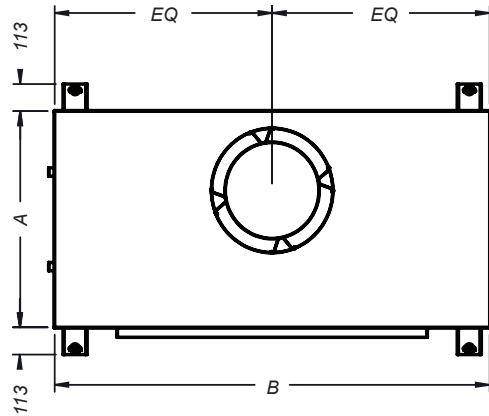
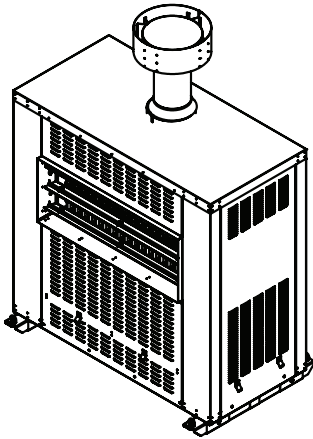


TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

SINGLE HEAT EXCHANGER NO BLOWER

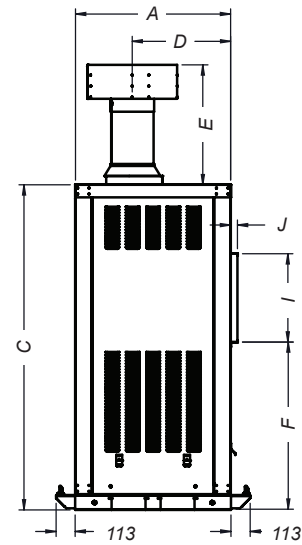
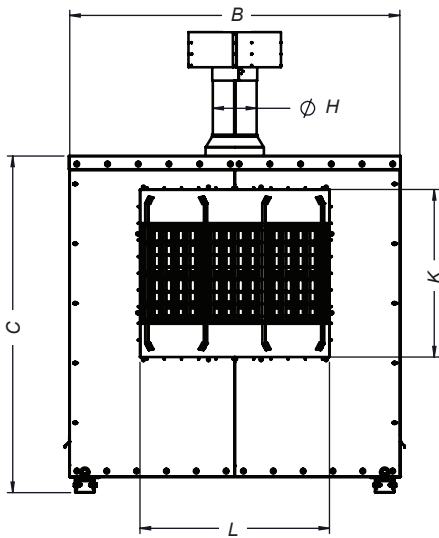
TOP

ISOMETRIC



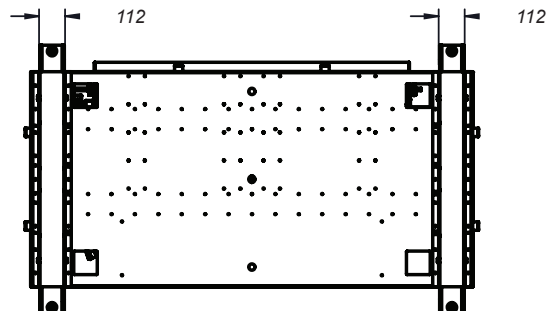
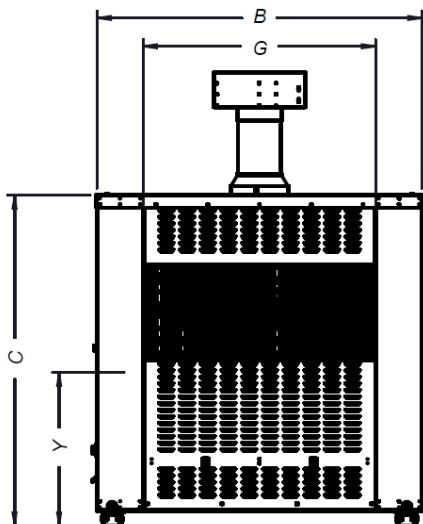
REAR

SIDE



FRONT

BOTTOM



Dimensions are in mm.

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

UNIT DIMENSIONS

SINGLE HEAT EXCHANGER NO BLOWER DU / SD

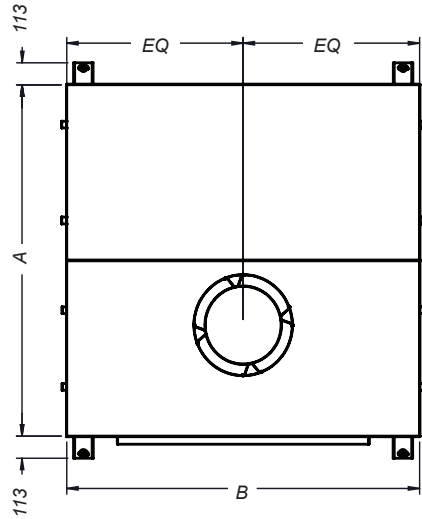
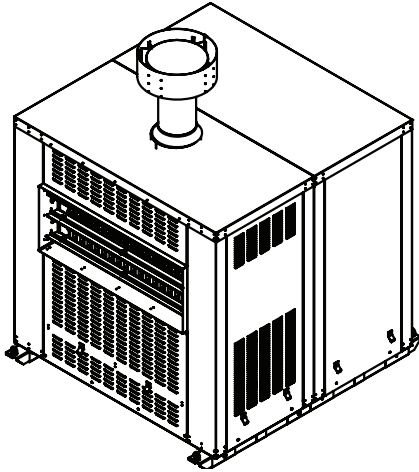
DIM	DU12	DU16	SD26	SD30	SD35	SD40
A	920	920	920	920	920	920
B	995	995	1556	1556	1890	1890
C	1253	1252	1570	1570	1918	1918
D	697	712	705	753	569	582
E	Varies based on installation requirements					
F	510	510	728	728	987	987
G	457	596	865	1003	1208	1346
H	150	175	200	250	250	250
I	455	455	525	525	525	525
J	40	40	35	35	35	35
K	505	505	790	790	955	955
L	550	550	795	795	1080	1080
Gas Inlet (Y)	370	370	580	580	840	840



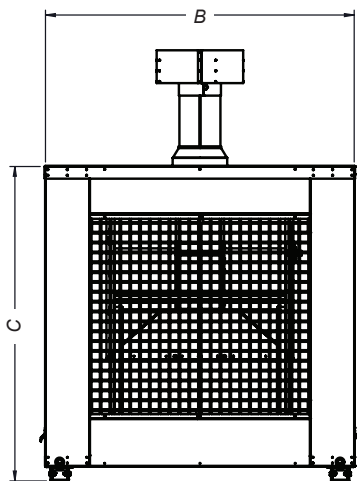
TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

SINGLE HEAT EXCHANGER WITH BLOWER DU / SD TOP

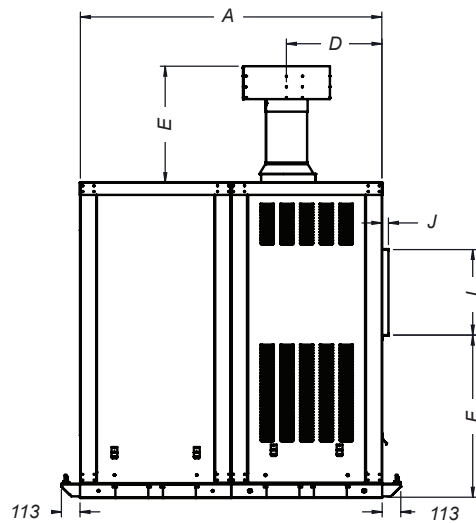
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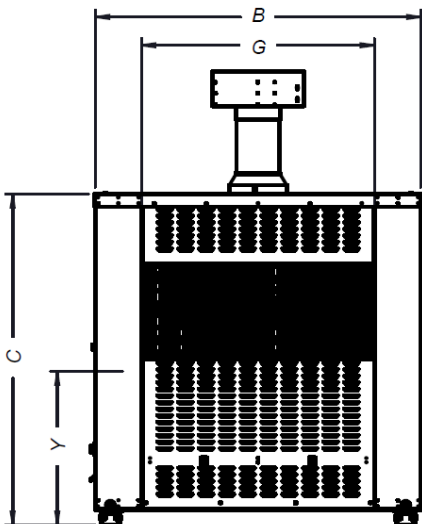
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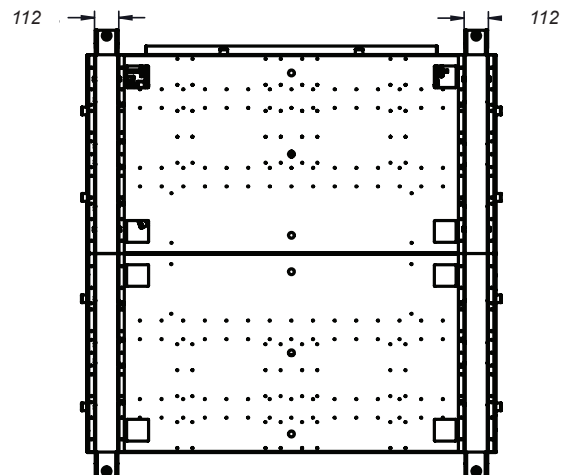
SIDE



FRONT



BOTTOM



Dimensions are in mm.

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

UNIT DIMENSIONS

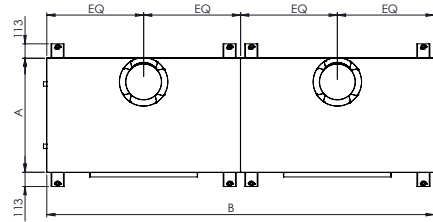
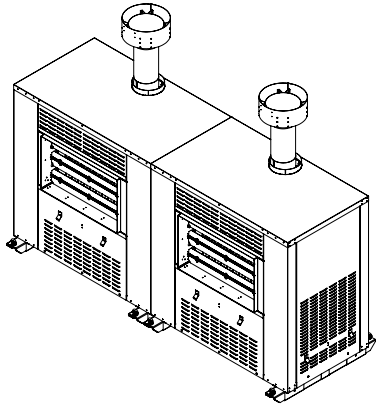
SINGLE HEAT EXCHANGER WITH BLOWER DU / SD

DIM	DU12	DU16	SD26	SD30	SD35	SD40
A	1835	1835	1835	1835	1835	1835
B	995	995	1556	1556	1890	1890
C	1253	1252	1570	1570	1918	1918
D	697	712	705	753	569	582
E	Varies based on installation requirements					
F	510	510	728	728	987	987
G	457	596	865	1003	1208	1346
H	150	175	200	250	250	250
I	455	455	525	525	525	525
J	40	40	35	35	35	35
K	505	505	790	790	955	955
L	550	550	795	795	1080	1080
Gas Inlet (Y)	370	370	580	580	840	840
Rear Grill Height	598	598	1009	1009	1350	1350
Rear Grill Width	755	755	1005	1005	1247	1247

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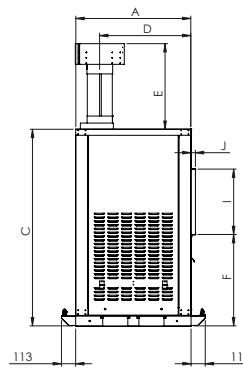
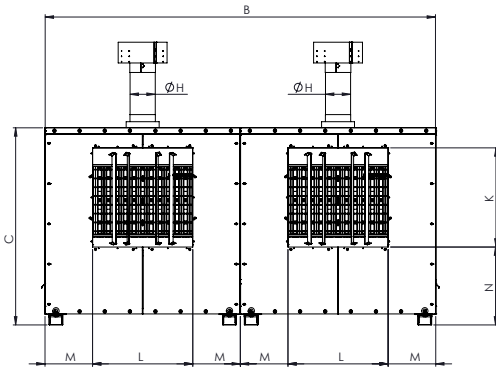
DUAL HEAT EXCHANGER NO BLOWER
ISO

TOP



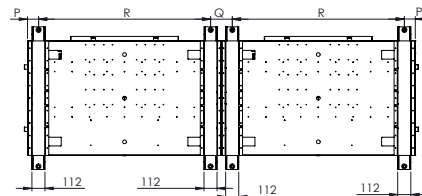
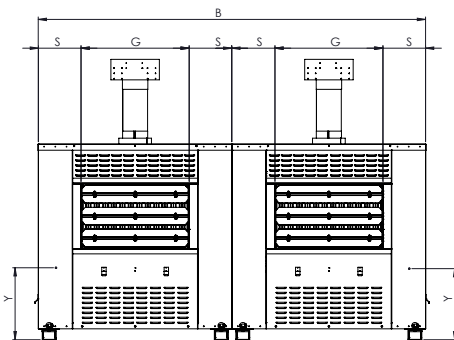
REAR

SIDE



FRONT

BOTTOM



Dimensions are in mm.

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

UNIT DIMENSIONS

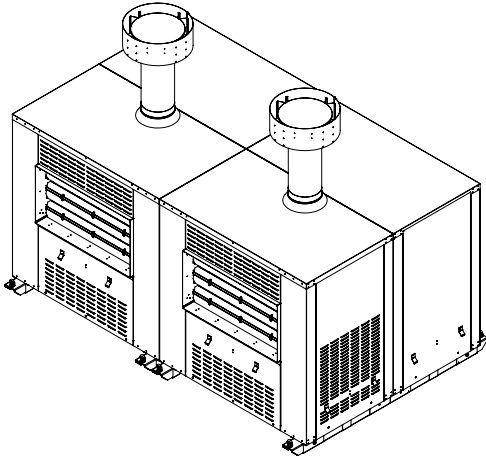
DUAL HEAT EXCHANGER NO BLOWER DU / SD

DIM	2xSD26	2XSD30	2XSD35
A	920	920	920
B	3112	3112	3780
C	1570	1570	1918
D	705	753	569
E	Varies based on installation requirements		
F	728	728	987
G	865	1003	1208
H	200	250	250
I	525	525	525
J	35	35	35
K	790	790	955
L	795	795	1080
M	380	380	405
N	620	620	770
P	90	90	90
Q	180	180	180
R	1380	1380	1380
S	345	275	340
Gas Inlet Y	580	580	840

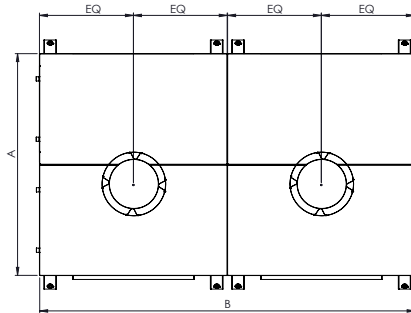
TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

DUAL HEAT EXCHANGER WITH BLOWER DU / SD

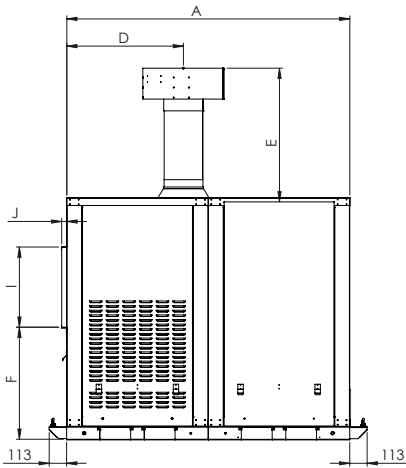
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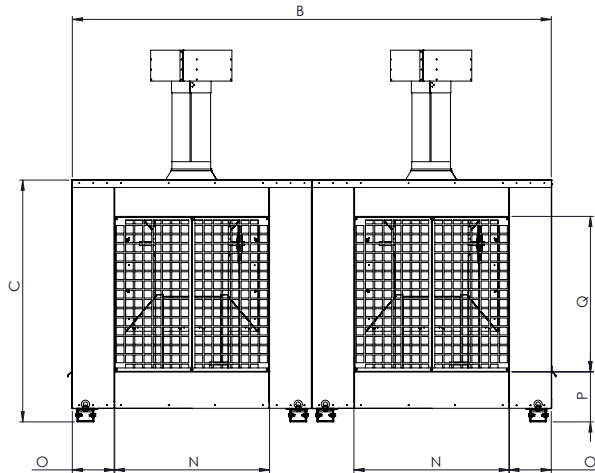
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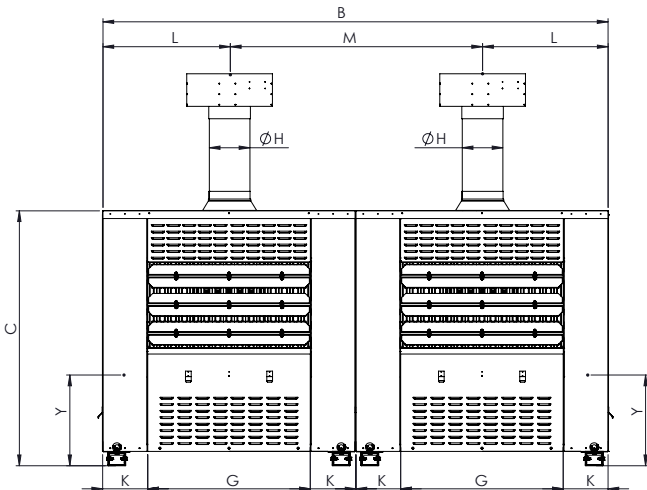
SIDE



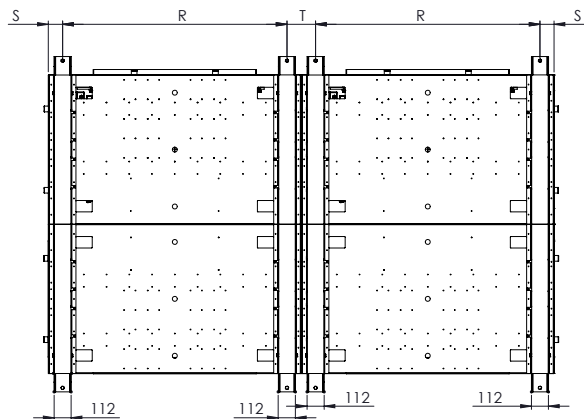
REAR



FRONT



BOTTOM



Dimensions are in mm.

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

UNIT DIMENSIONS

DUAL HEAT EXCHANGER WITH BLOWER DU / SD

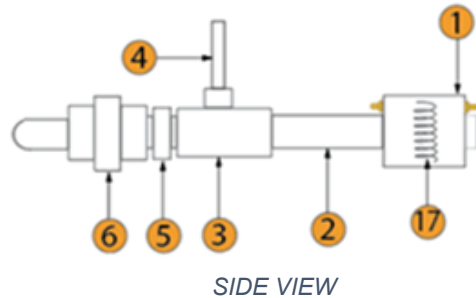
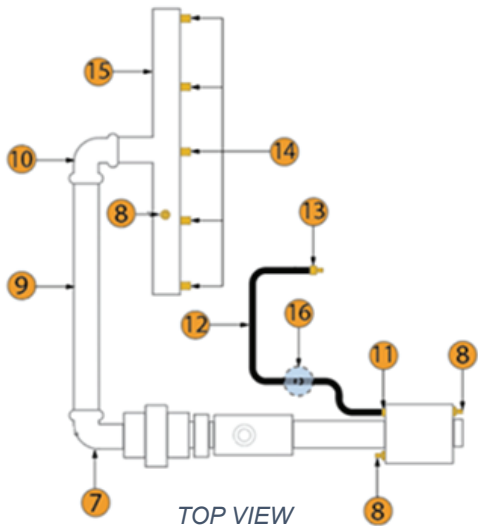
DIM	2xSD26	2xSD30	2xSD35
A	1835	1835	1835
B	3112	3112	3780
C	1570	1570	1918
D	705	753	569
E	Varies based on installation requirements		
F	728	728	987
G	865	1003	1208
H	200	250	250
I	525	525	525
J	35	35	35
K	345	275	340
L	778	778	945
M	1556	1556	1890
N	1000	1000	1340
O	275	275	275
P	325	325	375
Q	1010	1010	1250
R	1380	1380	1710
S	90	90	90
T	180	180	180
Y(Gas inlet)	580	580	840

TECHNICAL SPECIFICATIONS - DU / SD OR MODELS INDIRECT GAS FIRED HEATERS

MODEL:			DU12	DU16	SD26	SD30	SD35	SD40	2xSD26	2xSD30	2xSD35
CONFIGURATION	Type		SINGLE HEAT EXCHANGER						DUAL HEAT EXCHANGER		
HEATING PERFORMANCE	Airflow 28C Temp Rise	(L/s)	840	1118	1784	2100	2454	2785	2x1784	2x2100	2x2454
	Airflow 11C Temp Rise	(L/s)	2098	2800	4460	5240	6316	6985	2x4460	2x5240	2x6316
	Input NG (LPG)	(MJ/hr)	138 (127)	184 (169)	246 (274)	287 (290)	349 (349)	390 (422)	2x 246 (274)	2x 287 (290)	2x 349 (349)
	Output NG (LPG)	(kW)	29 (26)	38 (35)	51 (44)	60 (51)	73 (62)	81 (69)	2x 51 (44)	2x 60 (51)	2x 73 (62)
SERVICES	Electrical	Voltage V/Ph/Hz	240/1/50 or 415/3/50	240/1/50 or 415/3/50	240/1/50 or 415/3/50	240/1/50 or 415/3/50	240/1/50 or 415/3/50	240/1/50 or 415/3/50	2x 240/1/50 or 415/3/50	2x 240/1/50 or 415/3/50	2x 240/1/50 or 415/3/50
		Max Power	1.3	1.3	2.4	3.2	4.2	5.7	4.6	6.2	8.2
	Duct Connections	Orientation (mm)	Side Discharge	Side Discharge	Side Discharge	Side Discharge	Side Discharge	Side Discharge	2x Side Discharge	2x Side Discharge	2x Side Discharge
CONTROLLER	Type	Standard	BMS Interface	BMS Interface	BMS Interface	BMS Interface	BMS Interface	BMS Interface	BMS Interface	BMS Interface	BMS Interface
	Type	Optional	Wall Switch	Wall Switch	Wall Switch	Wall Switch	Wall Switch	Wall Switch	Wall Switch	Wall Switch	Wall Switch
	Voltage	V/Ph/Hz	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)	BMS (Customer Supplied)
FAN	Type		Blower	Blower	Blower	Blower	Blower	Blower	Blower	Blower	Blower
	Diameter	Inch	12	12	15	15	15 x 11 Dual	15 x 11 Dual	2 x 15	2 x 15	2 x 15 x 11 Dual
	Capacity		High	High	High	High	High	High	High	High	
MOTOR	Type		CS & R	CS & R	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase
	Speed	RPM	1440	1440	1440	1440	1440	1440	1440	1440	1440
	Output	(kW)	1.1	1.1	2.2	3.0	4.0	5.5	2 x 2.2	2 x 3.0	2 x 4.0
	Rated	(A)	7.1	7.1	4.9	6.4	8.4	11.2	4.9 / motor	6.4 / motor	8.4 / motor
	Frame Size		B56	B56	100L	100L	112M	132S	100L	100L	112M
	Rating	IP	21	21	55	55	55	55	55	55	
GAS SUPPLY LPG (Propane)	Maximum	(kPa)	3.5	3.5	3.5	3.5	3.5	3.5	3.5/unit	3.5/unit	3.5/unit
	Minimum	(kPa)	2.74	2.74	2.74	2.74	2.74	2.74	2.74/unit	2.74/unit	2.74/unit
GAS SUPPLY NG	Maximum	(kPa)	3.5	3.5	3.5	3.5	3.5	3.5	3.5/unit	3.5/unit	3.5/unit
	Minimum	(kPa)	1.12	1.12	1.12	1.12	1.12	1.12	1.12/unit	1.12/unit	1.12/unit
TEST POINT LPG (Propane)	High	(kPa)	2.5	2.5	2.5	2.5	2.5	2.5	2.5/unit	2.5/unit	2.5/unit
	Low	(kPa)	0.875	0.875	0.875	0.875	0.875	0.875	0.875/unit	0.875/unit	0.875/unit
TEST POINT NG	High	(kPa)	0.875	0.875	0.72	0.72	0.72	0.72	0.72/unit	0.72/unit	0.72/unit
	Low	(kPa)	0.30	0.30	0.30	0.30	0.30	0.30	0.30/unit	0.30/unit	0.30/unit
GAS SUPPLY SIZE		inch	3/4	3/4	3/4	3/4	3/4	3/4	2x 3/4	2x 3/4	2x 3/4
INJECTORS/BURNERS		Number	6	8	12	14	17	19	2x 12	2x 14	2x 17
DIMENSIONS	Shipping (Blower)	(mm)	2100 Long 1200 Wide 1500 High	2100 Long 1200 Wide 1500 High	2500 Long 1800 Wide 1820 High	2500 Long 1800 Wide 1820 High	2500 Long 1800 Wide 2170 High	2500 Long 1800 Wide 1820 High	2x Pallets 2500 Long 1800 Wide 1820 High	2x Pallets 2500 Long 1800 Wide 1820 High	2x Pallets 2500 Long 1800 Wide 2170 High
	Shipping (No Blower)	(mm)	2100 Long 1200 Wide 1500 High	2100 Long 1200 Wide 1500 High	2100 Long 1200 Wide 1820 High	2100 Long 1200 Wide 1820 High	2100 Long 1200 Wide 2170 High	2100 Long 1200 Wide 2170 High	2x Pallets 2100 Long 1200 Wide 1820 High	2x Pallets 2100 Long 1200 Wide 1820 High	2x Pallets 2100 Long 1200 Wide 2170 High
	Service Clearance All Sides	(mm)	1200	1200	1200	1200	1200	1200	1200	1200	1200
WEIGHT	Shipping (Blower)	(kg)	290	300	415	425	515	545	2x415	2x425	2x515
	Shipping (No Blower)	(kg)	175	195	255	265	310	340	2x255	2x265	2x310

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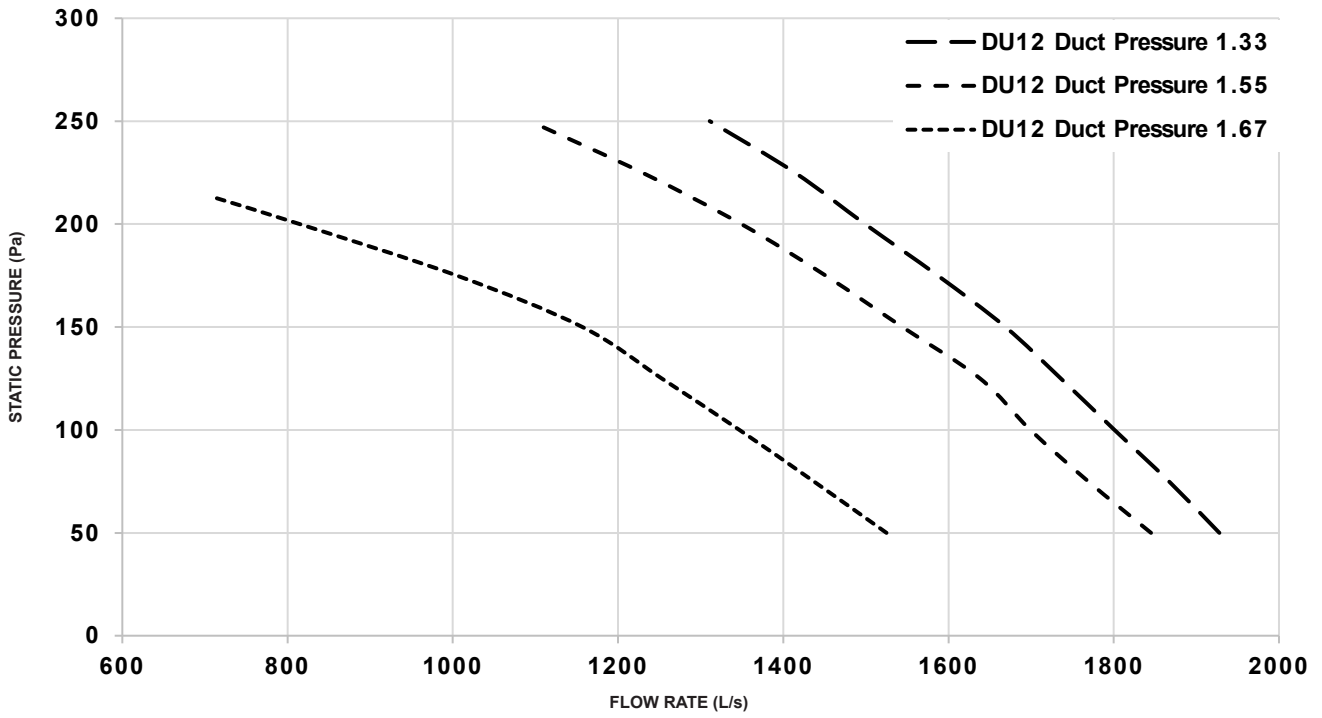
Natural Gas								
Item Number	Part Number	Description	DU12	DU16	SD26	SD30	SD35	SD40
1	PC332 PV326	WR GAS VALVE ¼ 24V 36C68C or 36H32409	1	1	1	1	1	1
2	648613	PIPE ¼" MEDIUM GAL (mm)	150	150	150	150	150	150
3	PV051	BALL VALVE ¼" ITAP ART 066	1	1	1	1	1	1
4	9656325	MODULATING COUPLING SHAFT SML	1	1	1	1	1	1
5	PN037	NIPPLE GAL HEX ¼"	1	1	1	1	1	1
6	PU009	UNION BARREL GAL BS 3*4" F/F	1	1	1	1	1	1
7	PB419	BEND GAL ¼" M & F"	1	1	1	1	1	1
8	PP238	PRESSURE TEST POINT 1/8" G09	3	3	3	3	3	3
9	648613	PIPE ¼" MEDIUM GAL (mm)	240	320	480	560	680	760
10	PE071	ELBOW GAL ¼" F&F"	1	1	1	1	1	1
11	PZ643	1/8NPT X ¼ NUT & OLIVE	1	1	1	1	1	1
12	PT032	TUBE ALUMINIMUM 6.35mmODX1.42	410	490	650	730	850	930
13	PB773	PILOT INJECTOR NG 0.57mm	1	1	1	1	1	1
14	PB213	NG MANIFOLD INJECTOR	6	8	12	14	17	19
15	VARIOUS	MANIFOLD	PM301	PM302	PM304	PM305	PM306	PM307
LPG								
Item Number	Part Number	Description	DU12	DU16	SD26	SD30	SD35	SD40
1	PV326	WR GAS VALVE 36H32-409 24V	1	1	1	1	1	1
2	648613	PIPE ¼" MEDIUM GAL	150	150	150	150	150	150
3	PV051	BALL VALVE ¼" ITAP ART 066	1	1	1	1	1	1
4	9656325	MODULATING COUPLING SHAFT SML	1	1	1	1	1	1
5	PN037	NIPPLE GAL HEX ¼"	1	1	1	1	1	1
6	PU009	UNION BARREL GAL BS 3*4" F/F	1	1	1	1	1	1
7	PB419	BEND GAL ¼" M & F"	1	1	1	1	1	1
8	PP238	PRESSURE TEST POINT 1/8" G09	3	3	3	3	3	3
9	648613	PIPE ¼" MEDIUM GAL	240	320	480	560	680	760
10	PE071	ELBOW GAL ¼" F&F"	1	1	1	1	1	1
11	PZ643	1/8NPT X ¼ NUT & OLIVE	1	1	1	1	1	1
12	PT032	TUBE ALUMINIMUM 6.35mmODX1.42	410	490	650	730	850	930
13	PB774	PILOT INJECTOR LPG SUITS PB772	1	1	1	1	1	1
14	PB209	LPG MANIFOLD INJECTOR	6	8	12	14	17	19
15	VARIOUS	MANIFOLD	PM301	PM302	PM304	PM305	PM306	PM307
16	PG149	REGULATOR; MAXITROL RV12 1/8" Optional	1	1	1	1	1	1
17	PC394	LPG CONVERSION KIT WHITE ROGERS	1	1	1	1	1	1



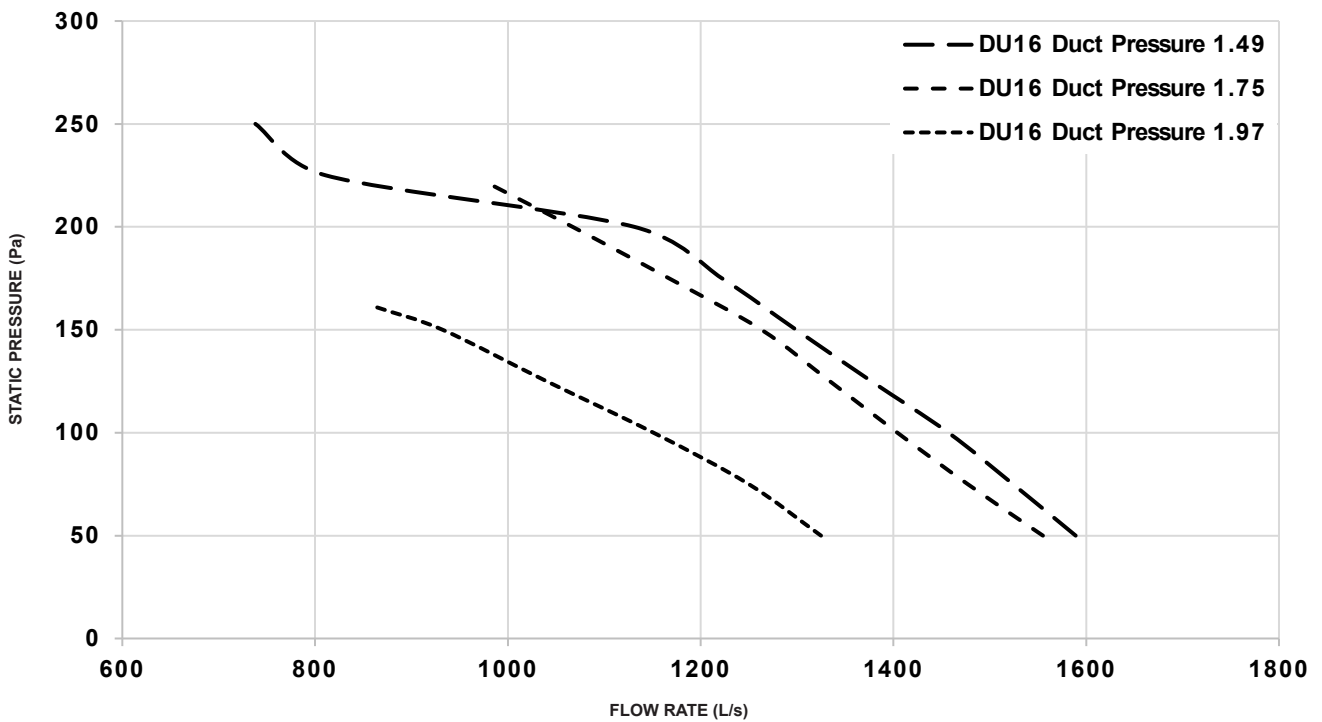
SIDE VIEW

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FAN CURVES DU12

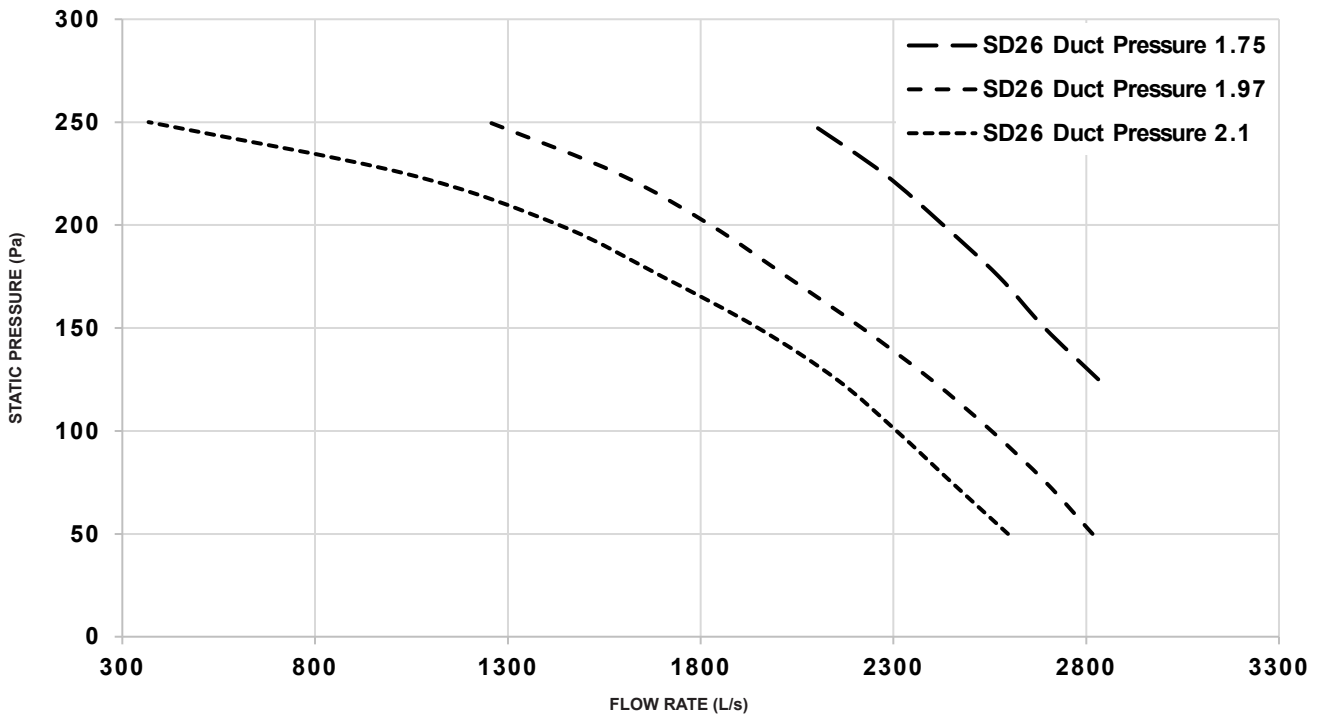


FAN CURVES DU16

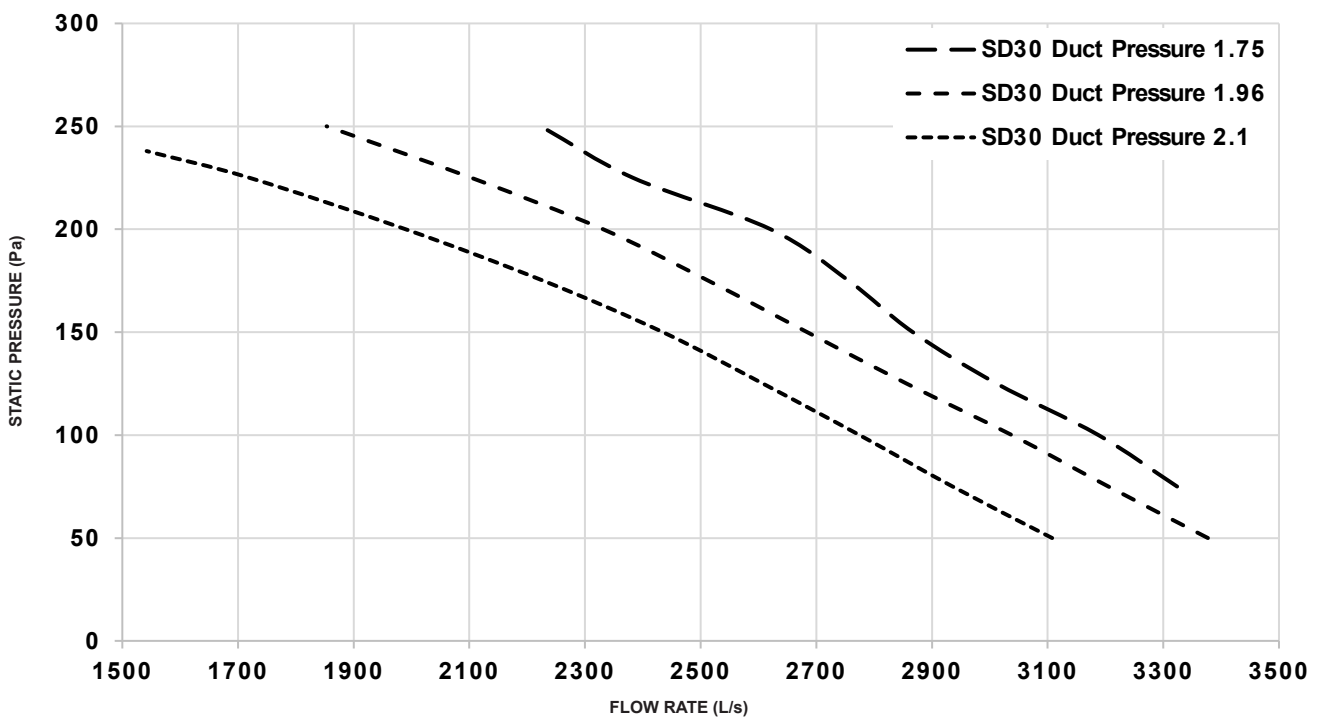


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FAN CURVES SD26

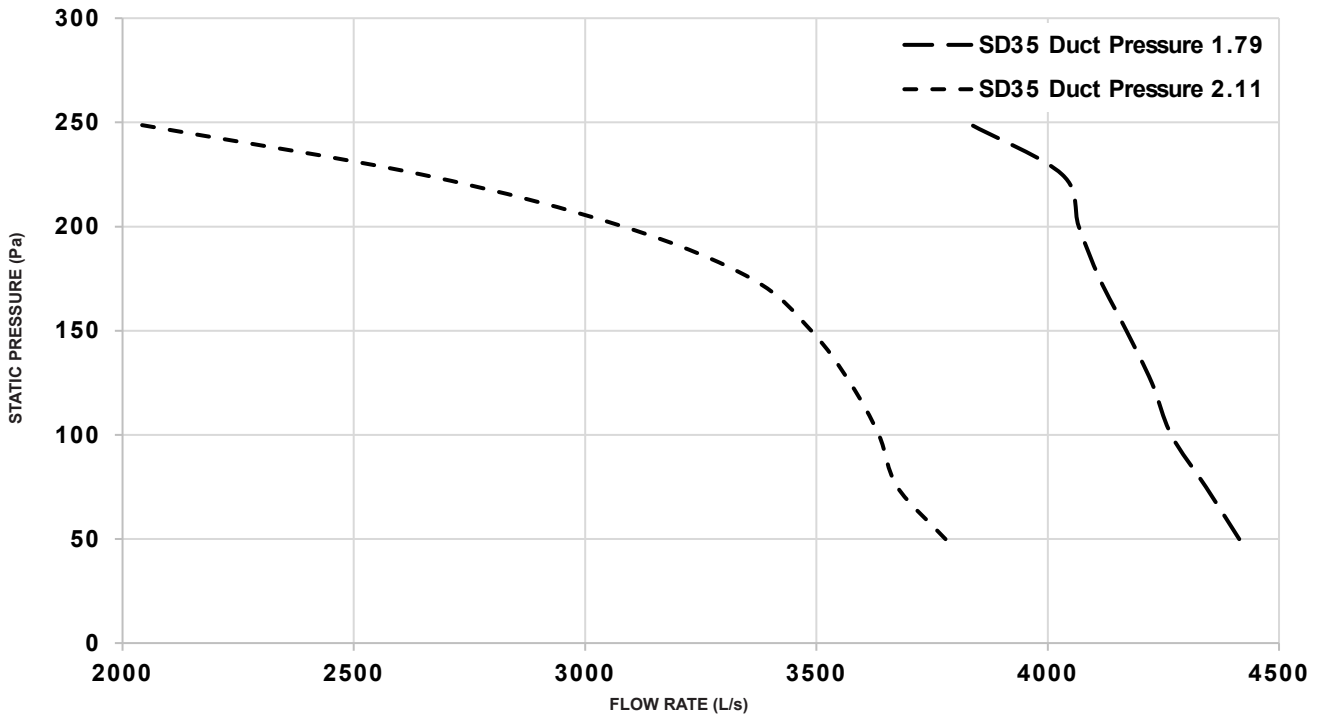


FAN CURVES SD30

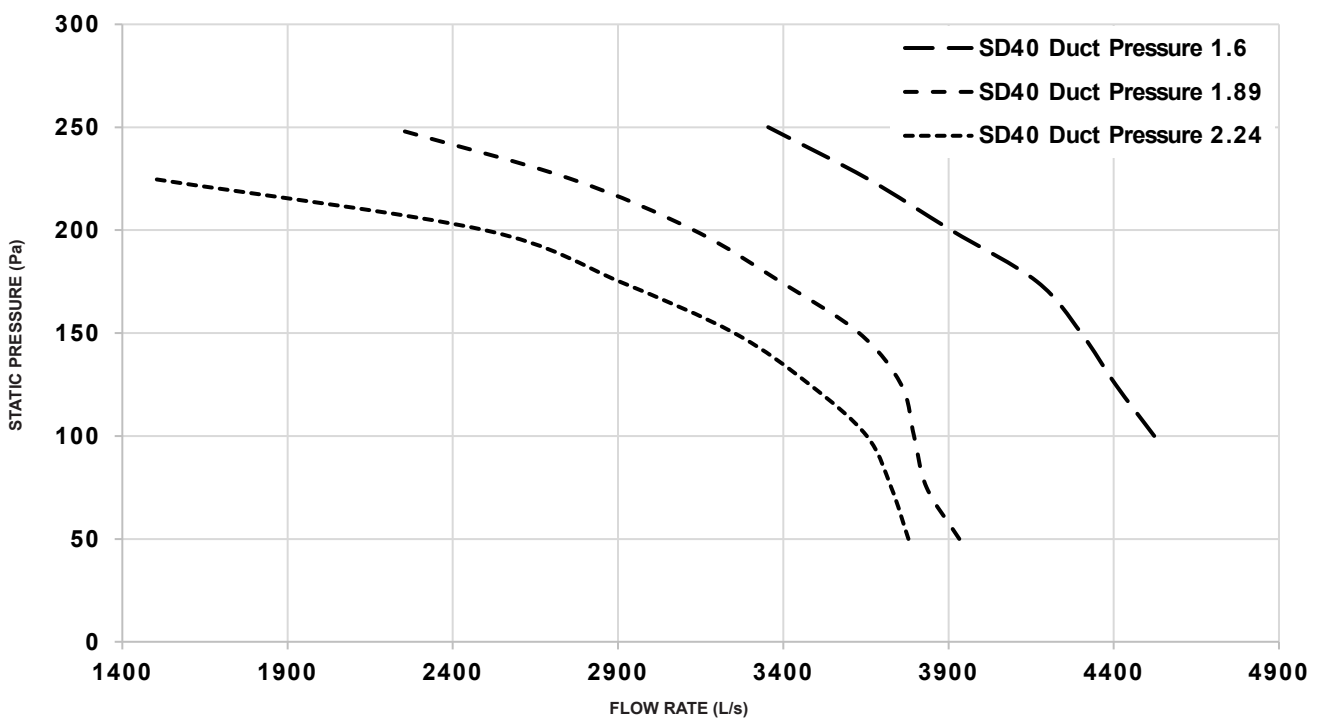


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FAN CURVES SD35



FAN CURVES SD40



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