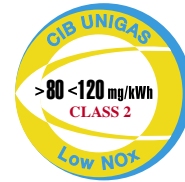


novanta SERIES HR91A HR92A HR93A



GAS/LIGHT OIL

The NOVANTA series, available in both progressive and modulating operations, represents the culmination of our experience in the field of medium-large capacity burners (up to 4.100 kW).

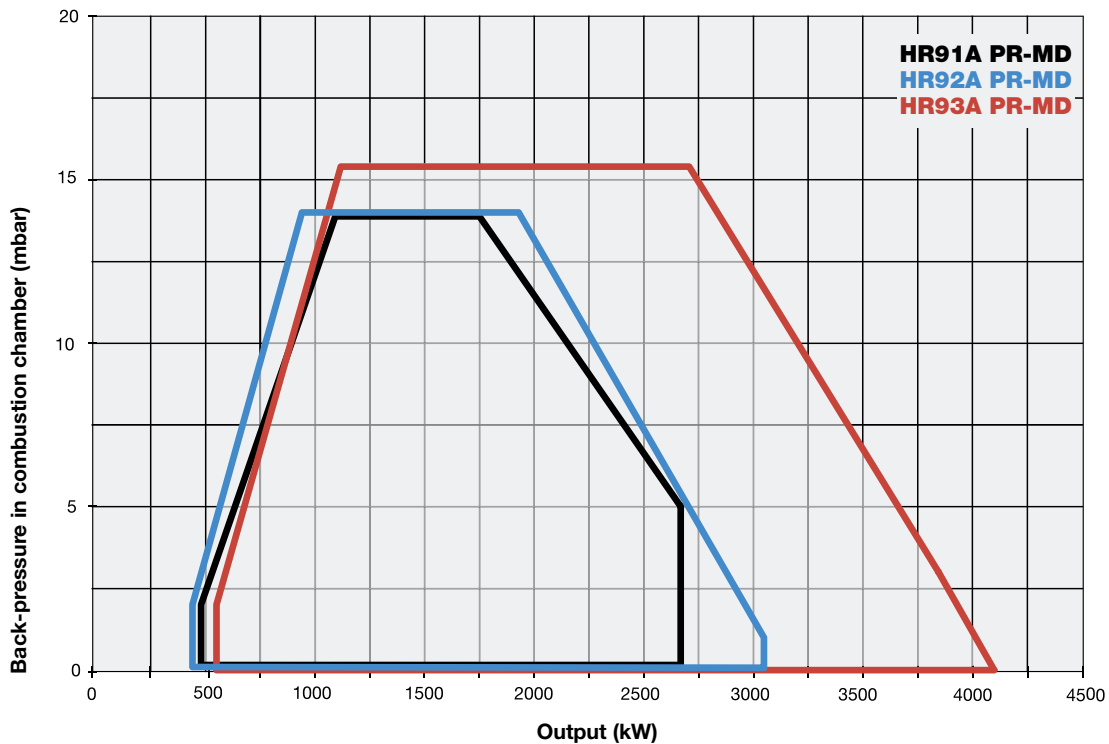
Like all the other dual fuels models, this series perfectly combines the mechanical devices and systems typical of gas burners with the ones of light oil burners. In this manner this series can burn the two flues separately.

This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence during gas firing, the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas.

Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of burners operation and any abnormalities. Therefore, the burners are provided with an UV photocell to control the flame during the operation.



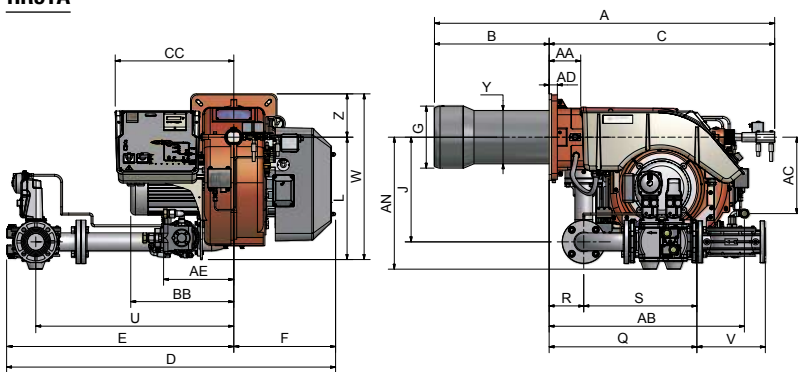


TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
HR91A	MG.xx.S.xx.A.1.xxx	480	2.670	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	4,0	1,1	2" - DN65 - DN80 - DN100	74,5
HR92A	MG.xx.S.xx.A.1.xxx	480	3.050	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	5,5	1,1	2" - DN65 - DN80 - DN100	76,9
HR93A	MG.xx.S.xx.A.1.xxx	550	4.100	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	77,4

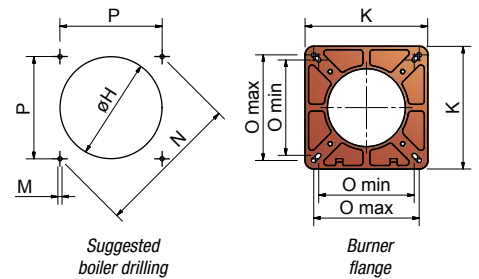
For the configuration of the gas train, see page 112-113.

HR91A



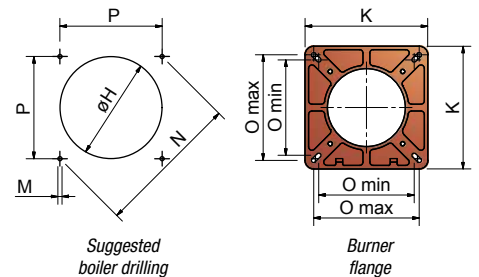
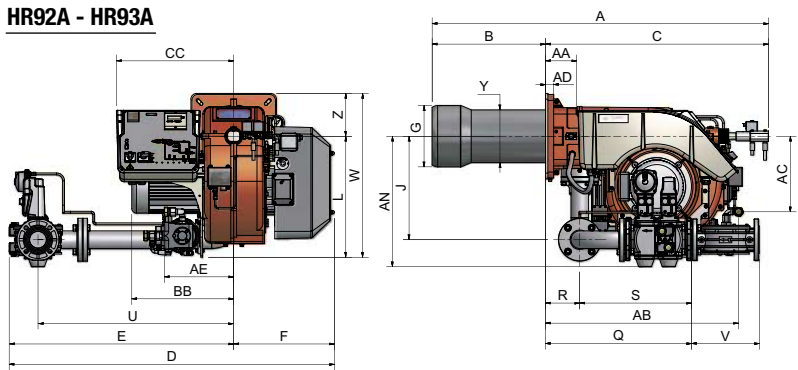
Type	Packaging dimensions (mm)			
	l	p	h	kg
HR91A/HR92A/HR93A	1.730	1.280	1.020	315

Approximate values



Type	Model	Overall dimensions (mm)																															
		A	AA	AB	AC	AD	AE	AN	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z	
		min. max.																															
HR91A	MG.xx.S.xx.A.1.50	1495	135	835	327	35	300	550	490	441	1005	507	1160	725	435	265	295	447	360	523	M12	424	280	310	300	532	148	384	624	190	708	228	185
HR91A	MG.xx.S.xx.A.1.65	1495	135	835	327	35	300	564	490	441	1005	507	1406	971	435	265	295	447	360	523	M12	424	280	310	300	632	148	484	846	292	708	228	185
HR91A	MG.xx.S.xx.A.1.80	1495	135	835	327	35	300	579	490	441	1005	507	1437	1002	435	265	295	447	360	523	M12	424	280	310	300	683	148	535	875	313	708	228	185
HR91A	MG.xx.S.xx.A.1.100	1495	135	835	327	35	300	592	490	441	1005	507	1520	1085	435	265	295	447	360	523	M12	424	280	310	300	790	148	642	942	353	708	228	185

HR92A - HR93A



Type	Model	Overall dimensions (mm)																															
		A	AA	AB	AC	AD	AE	AN	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z	
		min. max.																															
HR92A	MG.xx.S.xx.A.1.50	1495	135	835	327	35	300	550	490	441	1005	507	1160	725	435	269	299	447	360	523	M12	424	280	310	300	532	148	384	624	190	708	228	185
HR92A	MG.xx.S.xx.A.1.65	1495	135	835	327	35	300	564	490	441	1005	507	1406	971	435	269	299	447	360	523	M12	424	280	310	300	632	148	484	846	292	708	228	185
HR92A	MG.xx.S.xx.A.1.80	1495	135	835	327	35	300	579	490	441	1005	507	1437	1002	435	269	299	447	360	523	M12	424	280	310	300	683	148	535	875	313	708	228	185
HR92A	MG.xx.S.xx.A.1.100	1495	135	835	327	35	300	592	490	441	1005	507	1520	1085	435	269	299	447	360	523	M12	424	280	310	300	790	148	642	942	353	708	228	185
HR93A	MG.xx.S.xx.A.1.50	1495	135	835	327	35	300	550	495	493	1005	507	1160	725	435	304	344	447	360	523	M12	424	280	310	300	532	148	384	624	190	708	228	185
HR93A	MG.xx.S.xx.A.1.65	1495	135	835	327	35	300	564	495	493	1005	507	1406	971	435	304	344	447	360	523	M12	424	280	310	300	632	148	484	846	292	708	228	185
HR93A	MG.xx.S.xx.A.1.80	1495	135	835	327	35	300	579	495	493	1005	507	1437	1002	435	304	344	447	360	523	M12	424	280	310	300	683	148	535	875	313	708	228	185
HR93A	MG.xx.S.xx.A.1.100	1495	135	835	327	35	300	592	495	493	1005	507	1520	1085	435	304	344	447	360	523	M12	424	280	310	300	790	148	642	942	353	708	228	185

Approximate values

MECHANICAL OPERATION

Model	Gas train	Operation	HR91A		HR92A		HR93A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50	2"	PR (*)	012073753		012074153		012074553	
MG.PR.S.xx.A.1.65	DN65	PR (*)	012073853		012074253		012074653	
MG.PR.S.xx.A.1.80	DN80	PR (*)	012073953		012074353		012074753	
MG.PR.S.xx.A.1.100	DN100	PR (*)	012074053		012074453		012074853	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HR91A		HR92A		HR93A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50.EC	2"	PR (*)	01207265C		01207295C		01207335C	
MG.PR.S.xx.A.1.65.EC	DN65	PR (*)	01207275C		01207305C		01207345C	
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	01207285C		01207315C		01207355C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	01207295C		01207325C		01207365C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

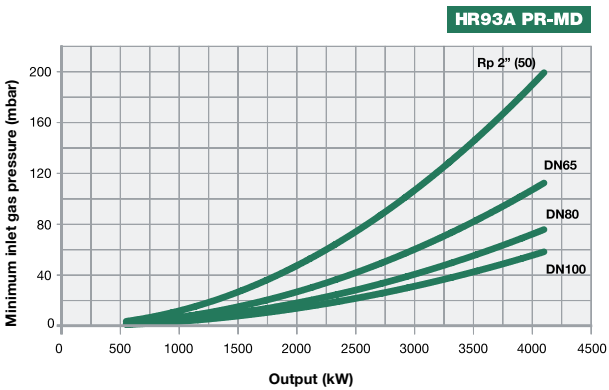
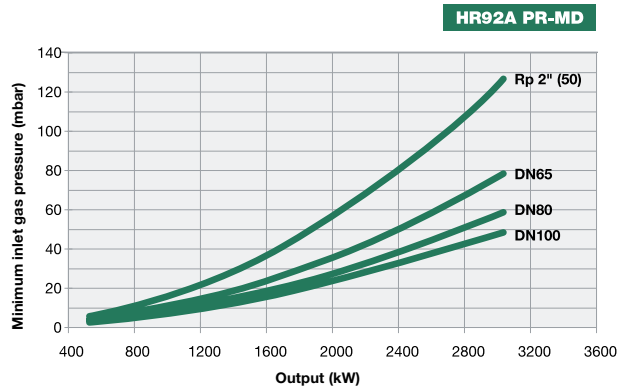
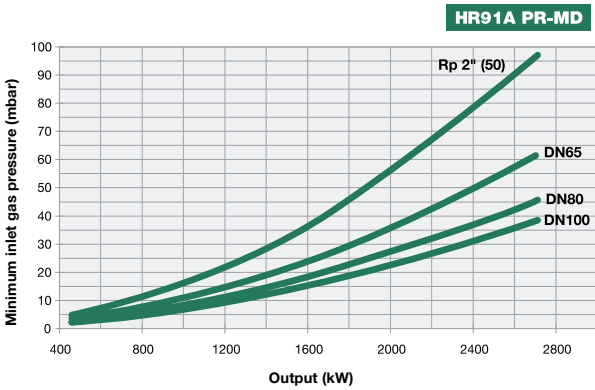
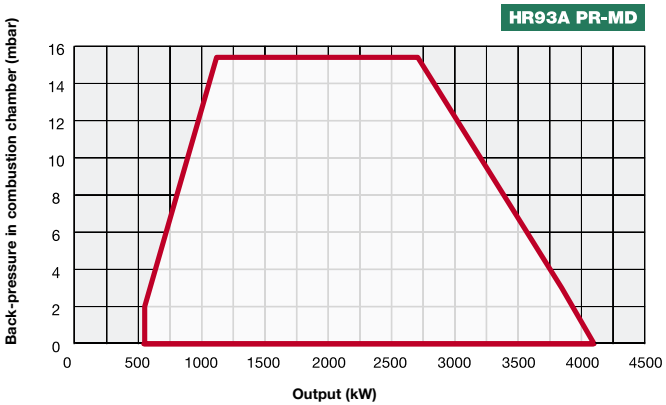
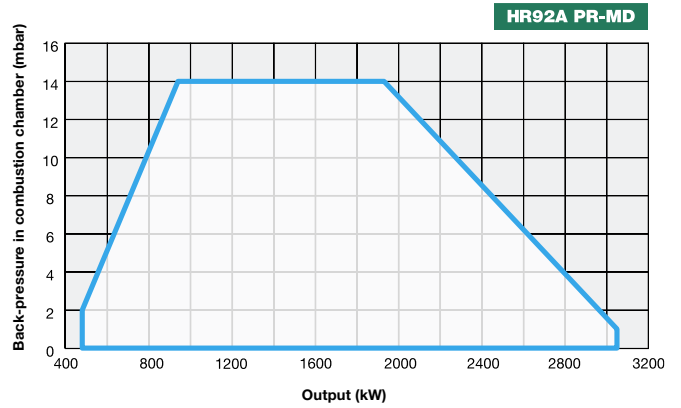
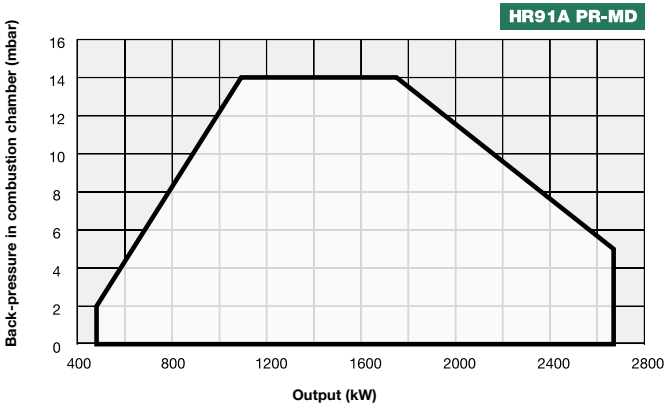
Model	Gas train	Operation	HR91A		HR92A		HR93A	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.S.xx.A.1.50.ES	2"	MD (**)	01207265S		01207295S		01207335S	
MG.MD.S.xx.A.1.65.ES	DN65	MD (**)	01207275S		01207305S		01207345S	
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	01207285S		01207315S		01207355S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	01207295S		01207325S		01207365S	

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

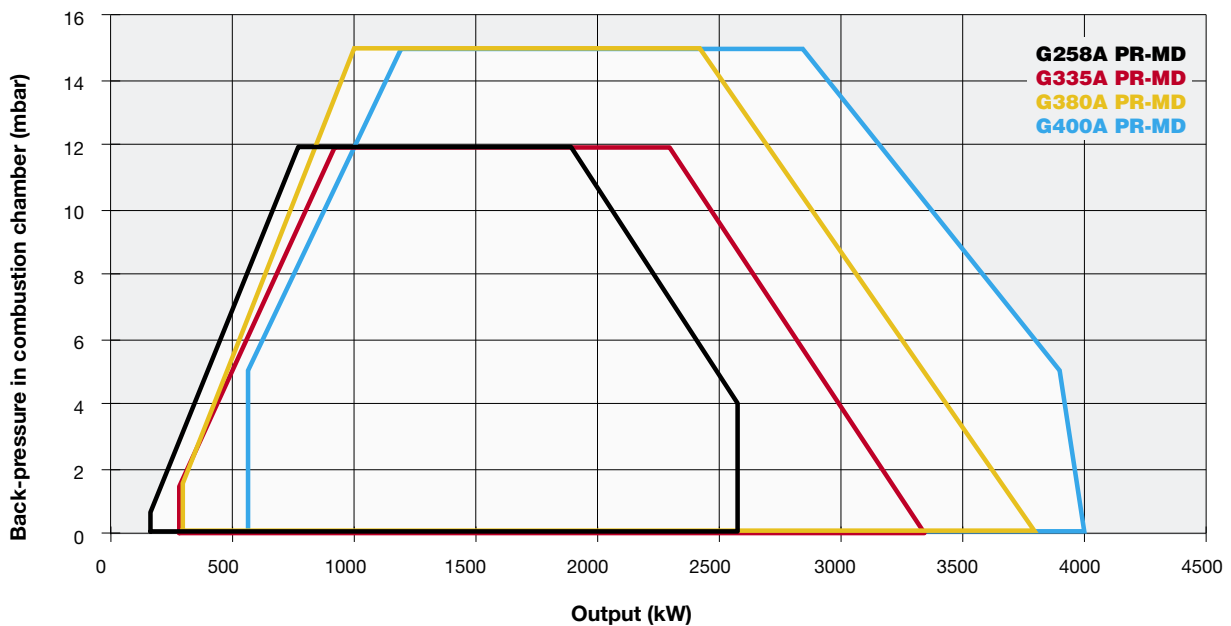


The new standard G type NOVANTA series **Low NO_x** burners **Class 2 (< 120 mg/kWh)**, made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence during gas firing, the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

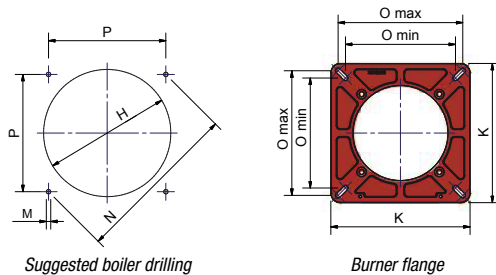
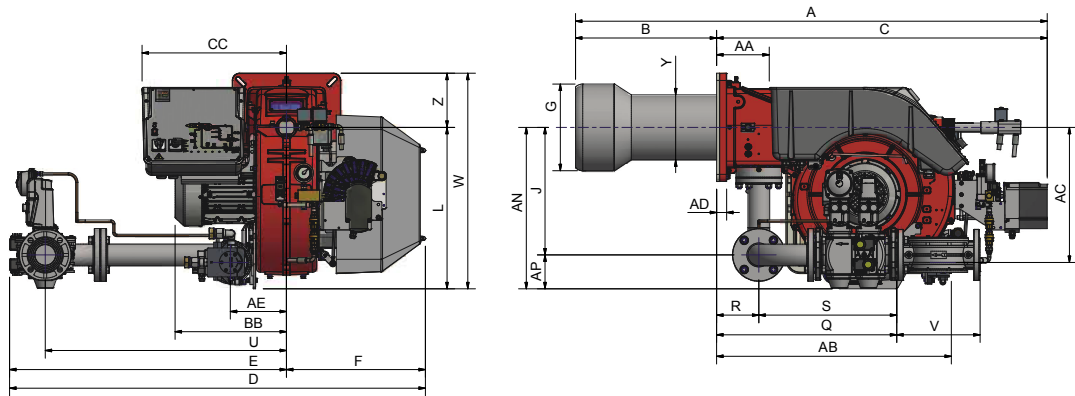




TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
G258A	MG.xx.SR.xx.A.1.xxx	165	2.580	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	4	1,1	2" - DN65 - DN80 - DN100	< 85
G335A	MG.xx.SR.xx.A.1.xxx	280	3.350	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	5,5	1,1	2" - DN65 - DN80 - DN100	< 85
G380A	MG.xx.SR.xx.A.1.xxx	295	3.800	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	5,5	1,1	2" - DN65 - DN80 - DN100	< 85
G400A	MG.xx.SR.xx.A.1.xxx	580	4.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	< 85

For the configuration of the gas train, see page 112-113.

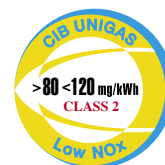


Type	Packaging dimensions (mm)			
	l	p	h	kg
G258A	1780	1200	1020	320
G335A	1780	1200	1020	325
G380A	1780	1200	1020	325
G400A	1780	1200	1020	330

Approximate values (regarding model with gas train DN80)

Type	Model	Overall dimensions (mm)																																	
		A	AA	AB	AC	AD	AE	AN	AP	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z		
		min.		max.		min.		max.		min.		max.		min.		max.		min.		max.		min.		max.		min.		max.		min.		max.		min.	
G258A	MG.xx.SR.xx.A.1.50	1626	184	850	372	35	271	550	100	460	391	1166	509	1116	725	391	254	290	450	380	518	M12	453	300	340	320	533	148	384	624	190	708	210	190	
G258A	MG.xx.SR.xx.A.1.65	1626	184	850	372	35	271	564	117	460	391	1166	509	1362	971	391	254	290	447	380	518	M12	453	300	340	320	636	148	487	845	292	708	210	190	
G258A	MG.xx.SR.xx.A.1.80	1626	184	850	372	35	271	579	132	460	391	1166	509	1393	1002	391	254	290	447	380	518	M12	453	300	340	320	687	148	538	875	310	708	210	190	
G258A	MG.xx.SR.xx.A.1.100	1605	184	850	372	35	271	592	145	460	391	1145	509	1474	1085	391	254	290	447	380	518	M12	453	300	340	320	791	148	642	942	353	708	210	190	
G335A	MG.xx.SR.xx.A.1.50	1626	184	850	372	35	271	550	100	460	399	1166	509	1116	725	391	254	290	450	380	518	M12	453	300	340	320	533	148	384	624	190	708	210	190	
G335A	MG.xx.SR.xx.A.1.65	1626	184	850	372	35	271	564	117	460	399	1166	509	1362	971	391	254	290	447	380	518	M12	453	300	340	320	636	148	487	845	292	708	210	190	
G335A	MG.xx.SR.xx.A.1.80	1626	184	850	372	35	271	579	132	460	399	1166	509	1393	1002	391	254	290	447	380	518	M12	453	300	340	320	687	148	538	875	310	708	210	190	
G335A	MG.xx.SR.xx.A.1.100	1605	184	850	372	35	271	592	145	460	399	1145	509	1474	1085	391	254	290	447	380	518	M12	453	300	340	320	791	148	642	942	353	708	210	190	
G380A	MG.xx.SR.xx.A.1.50	1627	184	850	372	35	271	550	100	490	471	1124	509	1139	725	414	265	300	450	380	518	M12	453	300	340	320	533	148	384	624	190	708	228	190	
G380A	MG.xx.SR.xx.A.1.65	1627	184	850	372	35	271	564	117	490	471	1124	509	1385	971	414	265	300	447	380	518	M12	453	300	340	320	636	148	487	845	292	708	228	190	
G380A	MG.xx.SR.xx.A.1.80	1627	184	850	372	35	271	579	132	490	471	1124	509	1416	1002	414	265	300	447	380	518	M12	453	300	340	320	687	148	538	875	310	708	228	190	
G380A	MG.xx.SR.xx.A.1.100	1647	184	850	372	35	271	592	145	490	471	1145	509	1499	1085	414	265	300	447	380	518	M12	453	300	340	320	791	148	642	942	353	708	228	190	
G400A	MG.xx.SR.xx.A.1.50	1624	184	850	372	35	271	550	100	500	471	1124	509	1139	725	414	304	345	450	380	518	M12	453	300	340	320	533	148	384	624	190	708	228	190	
G400A	MG.xx.SR.xx.A.1.65	1624	184	850	372	35	271	564	117	500	471	1124	509	1385	971	414	304	345	447	380	518	M12	453	300	340	320	636	148	487	845	292	708	228	190	
G400A	MG.xx.SR.xx.A.1.80	1624	184	850	372	35	271	579	132	500	471	1124	509	1416	1002	414	304	345	447	380	518	M12	453	300	340	320	687	148	538	875	310	708	228	190	
G400A	MG.xx.SR.xx.A.1.100	1645	184	850	372	35	271	592	145	500	471	1145	509	1499	1085	414	304	345	447	380	518	M12	453	300	340	320	791	148	642	942	353	708	228	190	

Approximate values



MECHANICAL OPERATION

Model	Gas train	Operation	G258A		G335A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50	2"	PR (*)	036070153		036070553	
MG.PR.SR.xx.A.1.65	DN65	PR (*)	036070253		036070653	
MG.PR.SR.xx.A.1.80	DN80	PR (*)	036070353		036070753	
MG.PR.SR.xx.A.1.100	DN100	PR (*)	036070453		036070853	

Model	Gas train	Operation	G380A		G400A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50	2"	PR (*)	036073353		036073753	
MG.PR.SR.xx.A.1.65	DN65	PR (*)	036073453		036073853	
MG.PR.SR.xx.A.1.80	DN80	PR (*)	036073553		036073953	
MG.PR.SR.xx.A.1.100	DN100	PR (*)	036073653		036074053	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE


ELECTRONIC OPERATION

Model	Gas train	Operation	G258A		G335A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03607015C		03607055C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03607025C		03607065C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03607035C		03607075C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03607045C		03607085C	

Model	Gas train	Operation	G380A		G400A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03607335C		03607375C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03607345C		03607385C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03607355C		03607395C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03607365C		03607405C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	G258A		G335A	
			Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03607015S		03607055S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03607025S		03607065S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03607035S		03607075S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03607045S		03607085S	

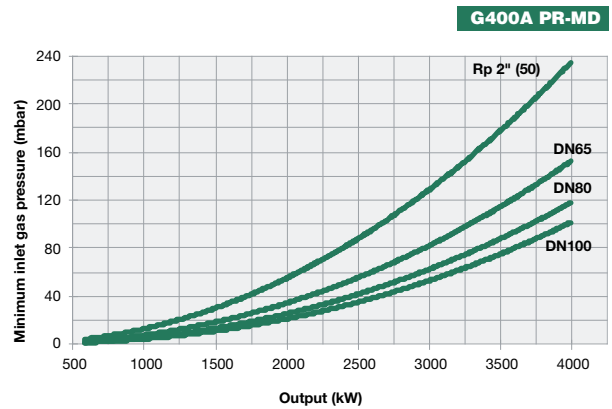
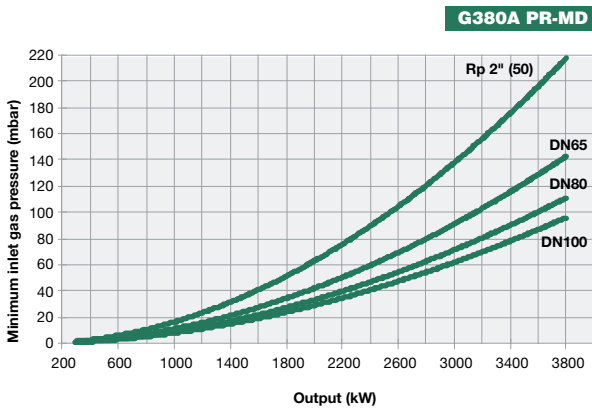
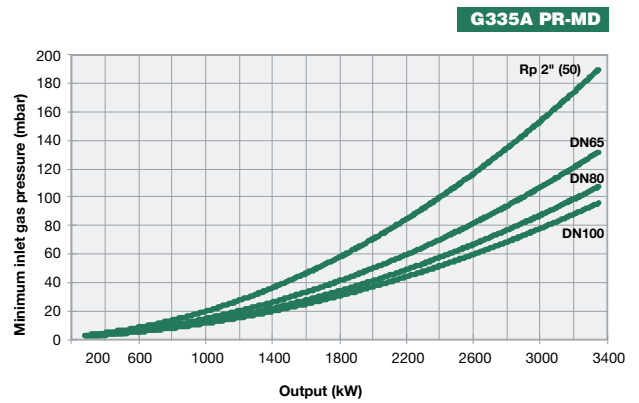
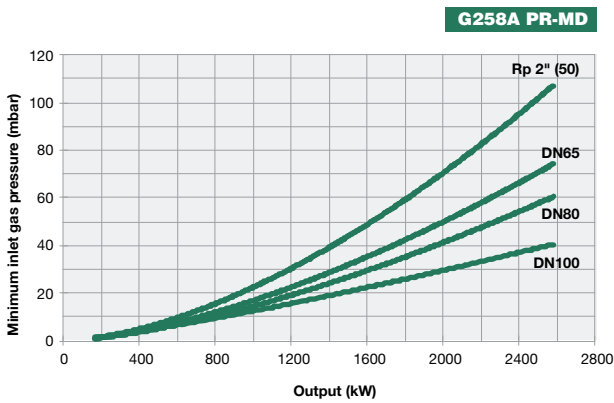
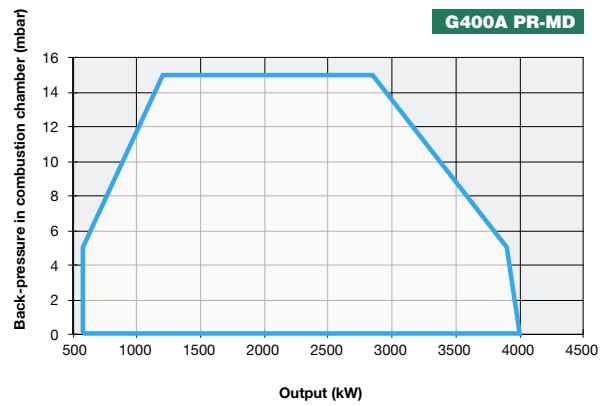
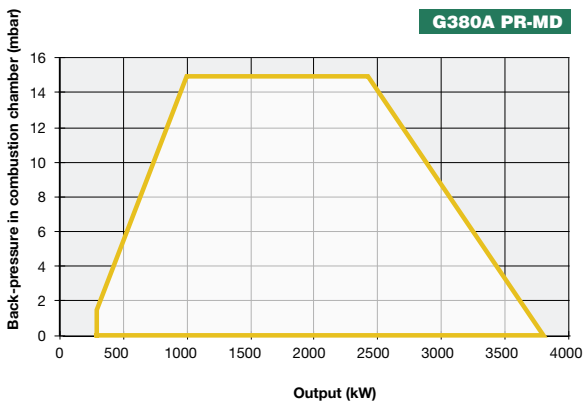
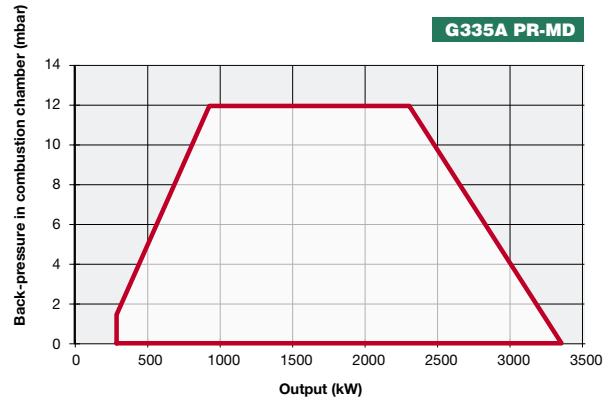
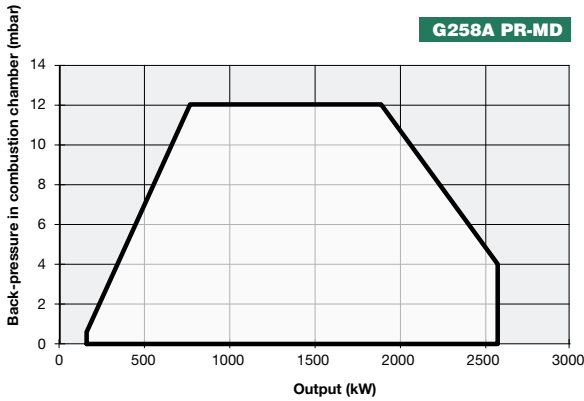
Model	Gas train	Operation	G380A		G400A	
			Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03607335S		03607375S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03607345S		03607385S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03607355S		03607395S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03607365S		03607405S	

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

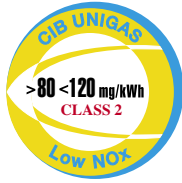
- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

NEW

GAS/LIGHT OIL

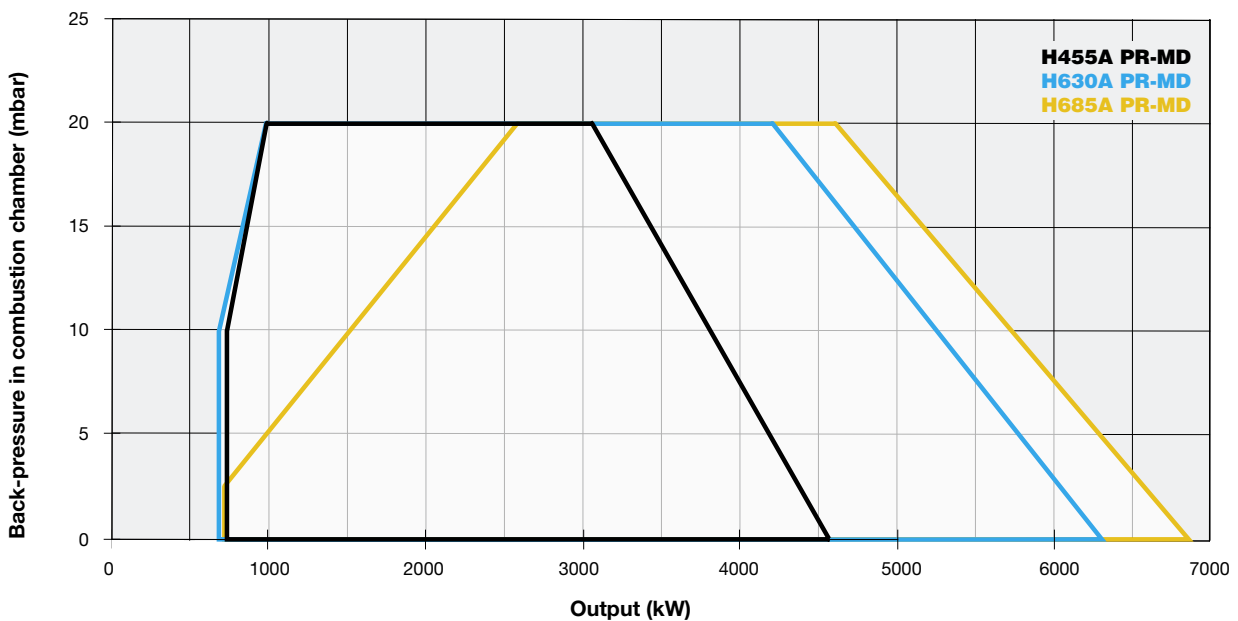


H455A H630A H685A **cinquecento** SERIES

The new standard H type CINQUECENTO series **Low NO_x** burners **Class 2 (< 120 mg/kWh)**, made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions. In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence during gas firing, the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

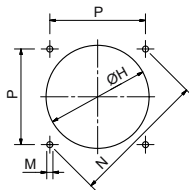
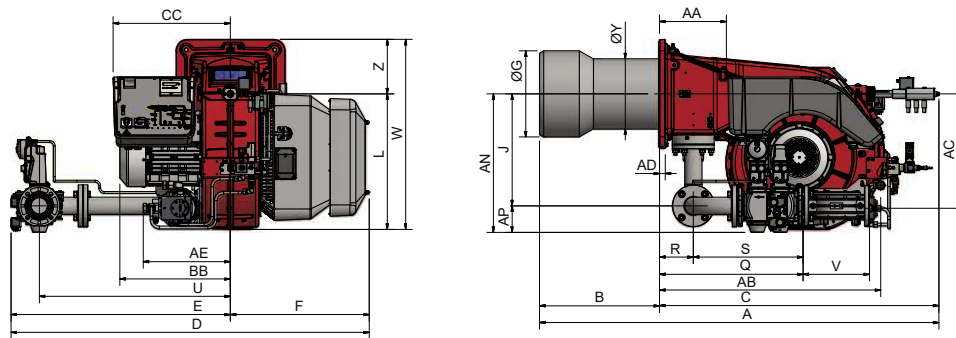
Therefore, the burners are provided with an UV photocell to control the flame during the operation.



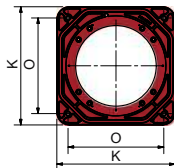
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
H455A	MG.xx.SR.xx.A.1.xxx	750	4.550	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	< 85
H630A	MG.xx.SR.xx.A.1.xxx	700	6.300	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	9,2	1,5	2" - DN65 - DN80 - DN100	< 85
H685A	MG.xx.SR.xx.A.1.xxx	740	6.850	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	9,2	1,5	2" - DN65 - DN80 - DN100	< 85

For the configuration of the gas train, see page 112-113.



Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm)			
	l	p	h	kg
H455A	1890	1290	1220	390
H630A	1890	1290	1220	420
H685A	1890	1290	1220	430

Approximate values (regarding model with gas train DN80)

Type	Model	Overall dimensions (mm)																													
		AA	A	AD	AE	AN	AP	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
H455A	MG.xx.SR.xx.A.1.50	295	1747	25	210	595	100	495	471	1252	511	1554	946	608	304	350	494	540	586	M14	552	390	390	764	150	613	845	190	856	288	270
H455A	MG.xx.SR.xx.A.1.65	295	1747	25	210	611	117	495	471	1252	511	1577	969	608	304	350	494	540	586	M14	552	390	390	634	150	484	845	294	856	288	270
H455A	MG.xx.SR.xx.A.1.80	295	1747	25	210	626	132	495	471	1252	511	1610	1002	608	304	350	494	540	586	M14	552	390	390	686	150	535	875	313	856	288	270
H455A	MG.xx.SR.xx.A.1.100	295	1747	25	210	639	145	495	471	1252	511	1690	1082	608	304	350	494	540	586	M14	552	390	390	791	150	642	942	353	856	288	270
H630A	MG.xx.SR.xx.A.1.50	295	1749	25	210	595	100	530	488	1219	511	1554	946	608	340	380	494	540	586	M14	552	390	390	764	150	613	845	190	856	284	270
H630A	MG.xx.SR.xx.A.1.65	295	1749	25	210	611	117	530	488	1219	511	1577	969	608	340	380	494	540	586	M14	552	390	390	634	150	484	845	294	856	284	270
H630A	MG.xx.SR.xx.A.1.80	295	1749	25	210	626	132	530	488	1219	511	1610	1002	608	340	380	494	540	586	M14	552	390	390	686	150	535	875	313	856	284	270
H630A	MG.xx.SR.xx.A.1.100	295	1749	25	210	639	145	530	488	1219	511	1690	1082	608	340	380	494	540	586	M14	552	390	390	791	150	642	942	353	856	284	270
H685A	MG.xx.SR.xx.A.1.50	295	1764	25	217	595	100	530	488	1234	511	1554	946	608	380	430	494	540	586	M14	552	390	390	764	150	613	845	190	856	328	270
H685A	MG.xx.SR.xx.A.1.65	295	1764	25	217	611	117	530	488	1234	511	1577	969	608	380	430	494	540	586	M14	552	390	390	634	150	484	845	294	856	328	270
H685A	MG.xx.SR.xx.A.1.80	295	1764	25	217	626	132	530	488	1234	511	1610	1002	608	380	430	494	540	586	M14	552	390	390	686	150	535	875	313	856	328	270
H685A	MG.xx.SR.xx.A.1.100	295	1764	25	217	639	145	530	488	1234	511	1690	1082	608	380	430	494	540	586	M14	552	390	390	791	150	642	942	353	856	328	270

Approximate values


MECHANICAL OPERATION

Model	Gas train	Operation	H455A		H630A		H685A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50	2"	PR (*)	035070153		035070553		035070953	
MG.PR.SR.xx.A.1.65	DN65	PR (*)	035070253		035070653		035071053	
MG.PR.SR.xx.A.1.80	DN80	PR (*)	035070353		035070753		035071153	
MG.PR.SR.xx.A.1.100	DN100	PR (*)	035070453		035070853		035071253	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	H455A		H630A		H685A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03507015C		03507055C		03507095C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03507025C		03507065C		03507105C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03507035C		03507075C		03507115C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03507045C		03507085C		03507125C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

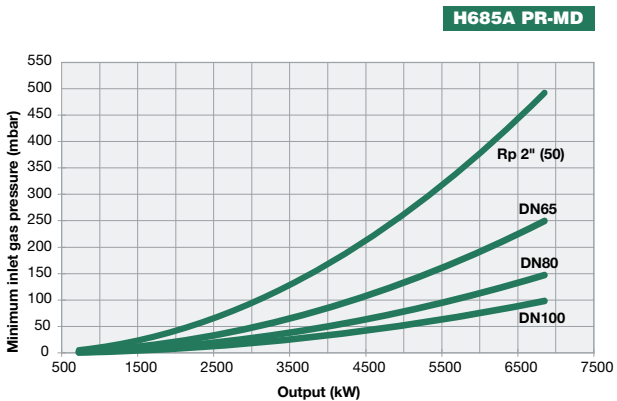
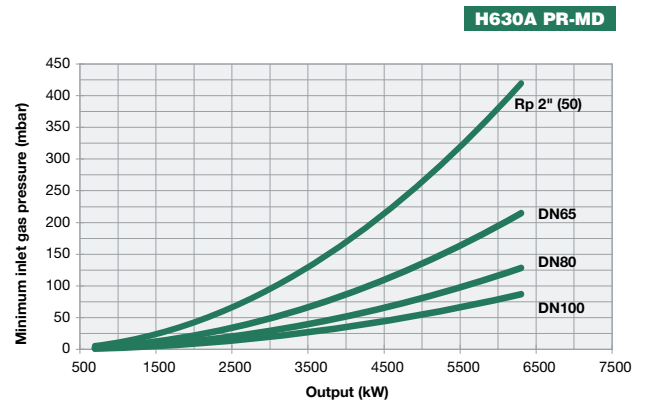
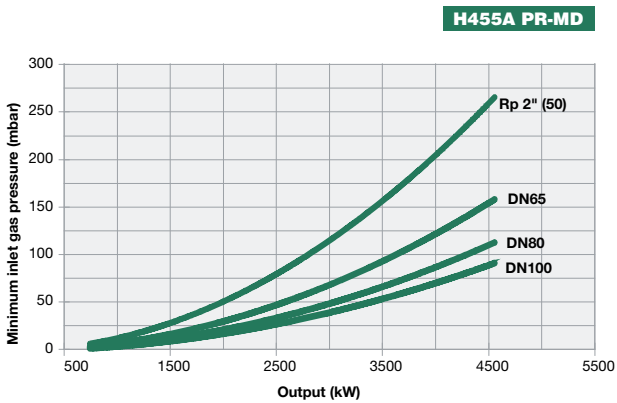
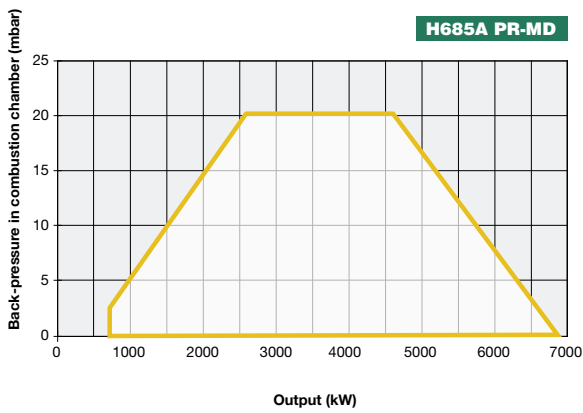
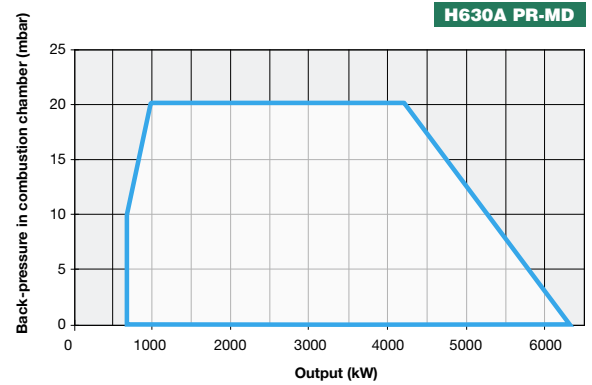
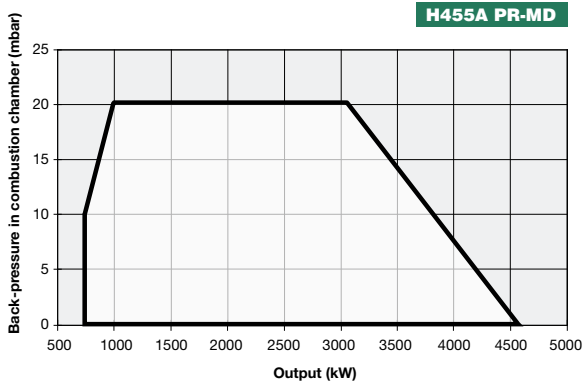
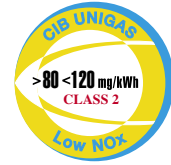
Model	Gas train	Operation	H455A		H630A		H685A	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03507015S		03507055S		03507095S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03507025S		03507065S		03507105S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03507035S		03507075S		03507115S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03507045S		03507085S		03507125S	

(**) The burners are already MD version.

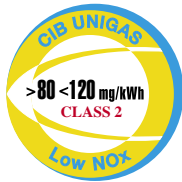
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



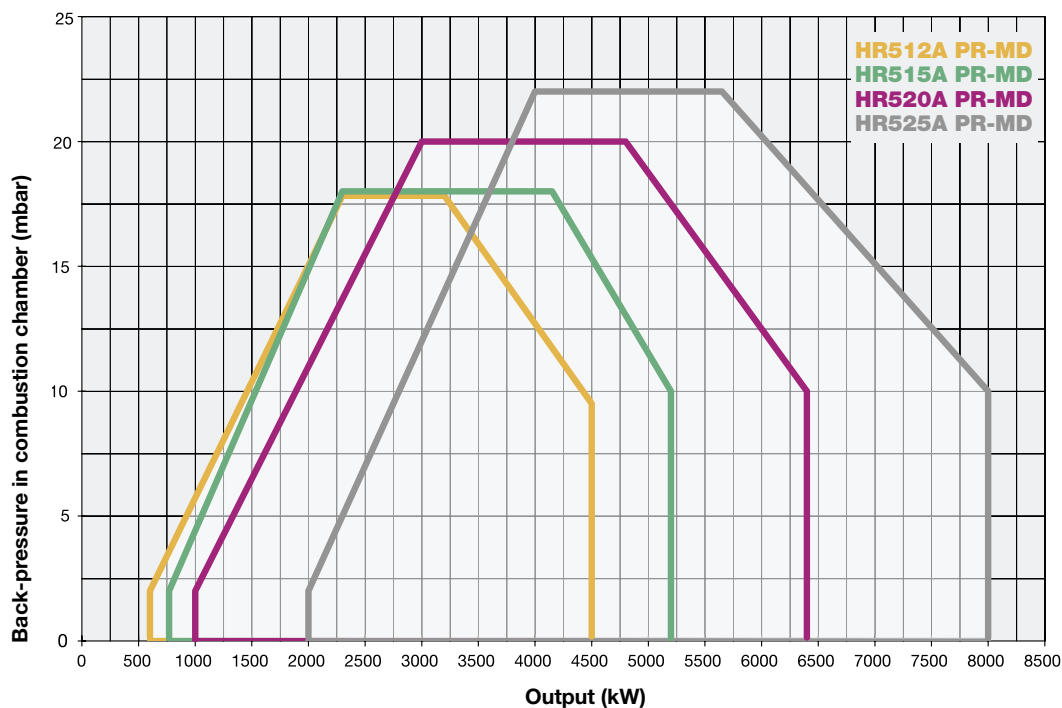
HR512A HR515A **cinquecento** SERIES HR520A HR525A

The CINQUECENTO series, available in both progressive and modulating operations, represents the culmination of our experience in the field of medium-large capacity burners (up to 8.000 kW). Like all the other dual fuels models, this series perfectly combines the mechanical devices and systems typical of gas burners with the ones of light oil burners. In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump.

As a consequence during gas firing, the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Conversely, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

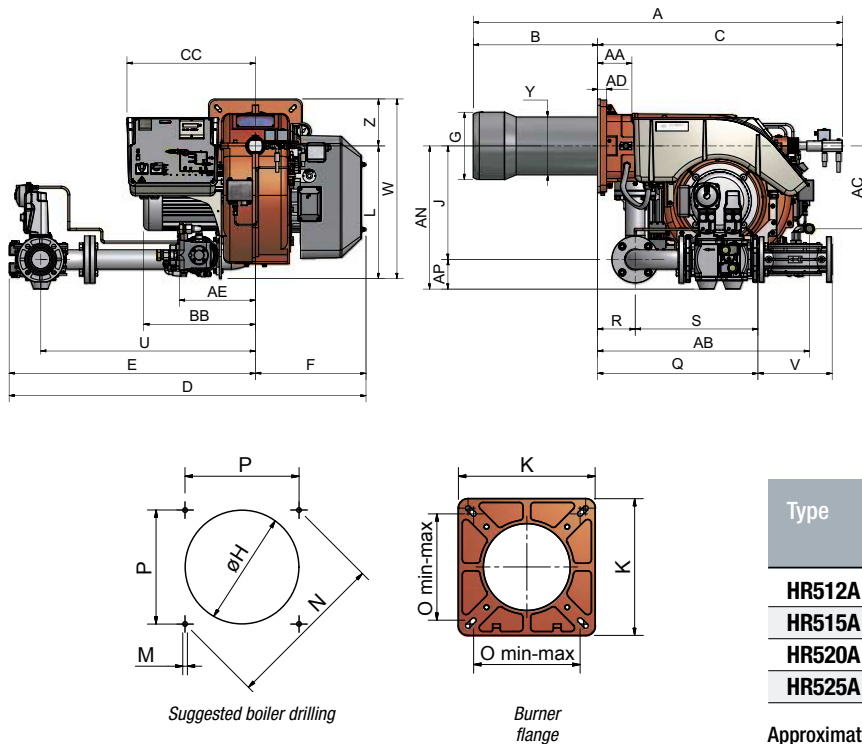
The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of burners operation and any abnormalities. Therefore, the burners are provided with an UV photocell to control the flame during the operation.



TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
HR512A	MG.xx.S.xx.A.1.xxx	600	4.500	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	9,2	1,1	2" - DN65 - DN80 - DN100	81,7
HR515A	MG.xx.S.xx.A.1.xxx	770	5.200	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	11,0	1,5	2" - DN65 - DN80 - DN100	82,3
HR520A	MG.xx.S.xx.A.1.xxx	1.000	6.400	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	15,0	1,5	2" - DN65 - DN80 - DN100	83,2
HR525A	MG.xx.S.xx.A.1.xxx	2.000	8.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	18,5	3,0	DN65 - DN80 - DN100 A	84,9

For the configuration of the gas train, see page 112-113.

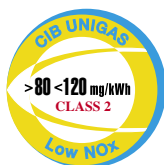


Type	Packaging dimensions (mm)			
	l	p	h	kg
HR512A	1.730	1.430	1.130	340
HR515A	1.730	1.430	1.130	360
HR520A	1.730	1.430	1.130	375
HR525A	1.800	1.500	1.300	400

Approximate values

Type	Model	Overall dimensions (mm)																														
		A	AA	AB	AC	AD	AE	AN	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
HR512A	MG.xx.S.xx.A.1.50	1669	220	924	364	35	348	595	530	517	1139	532	1590	946	644	340	380	494	540	494	M14	552	390	390	763	149	614	845	190	830	328	270
HR512A	MG.xx.S.xx.A.1.65	1669	220	924	364	35	348	611	530	517	1139	532	1613	969	644	340	380	494	540	494	M14	552	390	390	636	149	487	845	292	830	328	270
HR512A	MG.xx.S.xx.A.1.80	1669	220	924	364	35	348	626	530	517	1139	532	1645	1002	644	340	380	494	540	494	M14	552	390	390	687	149	538	875	313	830	328	270
HR512A	MG.xx.S.xx.A.1.100	1669	220	924	364	35	348	639	530	517	1139	532	1726	1082	644	340	380	494	540	494	M14	552	390	390	791	149	642	942	353	830	328	270
HR515A	MG.xx.S.xx.A.1.50	1669	220	928	371	35	348	595	530	517	1139	532	1590	946	644	380	420	494	540	494	M14	552	390	390	763	149	614	845	190	830	328	270
HR515A	MG.xx.S.xx.A.1.65	1669	220	928	371	35	348	611	530	517	1139	532	1613	969	644	380	420	494	540	494	M14	552	390	390	636	149	487	845	292	830	328	270
HR515A	MG.xx.S.xx.A.1.80	1669	220	928	371	35	348	626	530	517	1139	532	1645	1002	644	380	420	494	540	494	M14	552	390	390	687	149	538	875	313	830	328	270
HR515A	MG.xx.S.xx.A.1.100	1669	220	928	371	35	348	639	530	517	1141	532	1726	1082	644	380	420	494	540	494	M14	552	390	390	791	149	642	942	353	830	328	270
HR520A	MG.xx.S.xx.A.1.50	1671	220	928	371	35	348	595	530	517	1141	532	1590	946	644	400	450	494	540	494	M14	552	390	390	763	149	614	845	190	830	328	270
HR520A	MG.xx.S.xx.A.1.65	1671	220	928	371	35	348	611	530	517	1141	532	1613	969	644	400	450	494	540	494	M14	552	390	390	636	149	487	845	292	830	328	270
HR520A	MG.xx.S.xx.A.1.80	1671	220	928	371	35	348	626	530	517	1141	532	1645	1002	644	400	450	494	540	494	M14	552	390	390	687	149	538	875	313	830	328	270
HR520A	MG.xx.S.xx.A.1.100	1671	220	928	371	35	348	639	530	517	1141	532	1726	1082	644	400	450	494	540	494	M14	552	390	390	791	149	642	942	353	830	328	270
HR525A	MG.xx.S.xx.A.1.65	1671	220	928	580	35	348	611	530	650	1141	650	1613	969	644	434	484	494	540	494	M14	552	390	390	636	149	487	845	292	874	328	270
HR525A	MG.xx.S.xx.A.1.80	1671	220	884	580	35	348	626	530	650	1141	650	1645	1002	644	434	484	494	540	494	M14	552	390	390	687	149	538	875	313	874	328	270
HR525A	MG.xx.S.xx.A.1.100	1671	220	884	580	35	348	639	530	650	1141	650	1726	1082	644	434	484	494	540	494	M14	552	390	390	792	149	642	942	353	874	328	270

Approximate values


MECHANICAL OPERATION

Model	Gas train	Operation	HR512A		HR515A	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50	2"	PR (*)	029070153		029070553	
MG.PR.S.xx.A.1.65	DN65	PR (*)	029070253		029070653	
MG.PR.S.xx.A.1.80	DN80	PR (*)	029070353		029070753	
MG.PR.S.xx.A.1.100	DN100	PR (*)	029070453		029070853	

Model	Gas train	Operation	HR520A		HR525A	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50	2"	PR (*)	029070953		-	
MG.PR.S.xx.A.1.65	DN65	PR (*)	029071053		029071453	
MG.PR.S.xx.A.1.80	DN80	PR (*)	029071153		029071553	
MG.PR.S.xx.A.1.100	DN100	PR (*)	029071253		029071653	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



ELECTRONIC OPERATION

Model	Gas train	Operation	HR512A		HR515A	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50.EC	2"	PR (*)	02907015C		02907055C	
MG.PR.S.xx.A.1.65.EC	DN65	PR (*)	02907025C		02907065C	
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	02907035C		02907075C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	02907045C		02907085C	

Model	Gas train	Operation	HR520A		HR525A	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50.EC	2"	PR (*)	02907095C		-	
MG.PR.S.xx.A.1.65.EC	DN65	PR (*)	02907105C		02907145C	
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	02907115C		02907155C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	02907125C		02907165C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HR512A		HR515A	
			Code	Price €	Code	Price €
MG.MD.S.xx.A.1.50.ES	2"	MD (**)	02907015S		02907055S	
MG.MD.S.xx.A.1.65.ES	DN65	MD (**)	02907025S		02907065S	
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	02907035S		02907075S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	02907045S		02907085S	

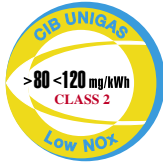
Model	Gas train	Operation	HR520A		HR525A	
			Code	Price €	Code	Price €
MG.MD.S.xx.A.1.50.ES	2"	MD (**)	02907095S		-	
MG.MD.S.xx.A.1.65.ES	DN65	MD (**)	02907105S		02907145S	
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	02907115S		02907155S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	02907125S		02907165S	

(**) The burners are already MD version.

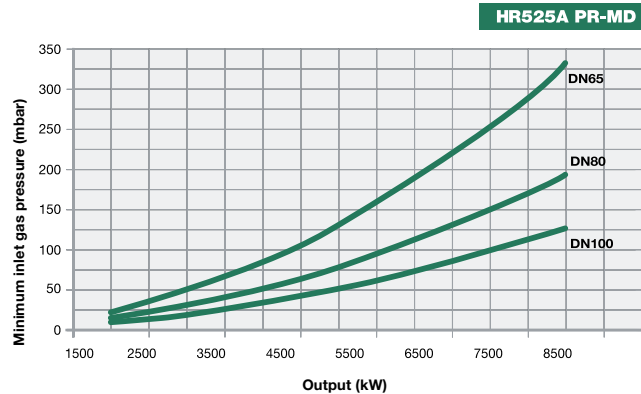
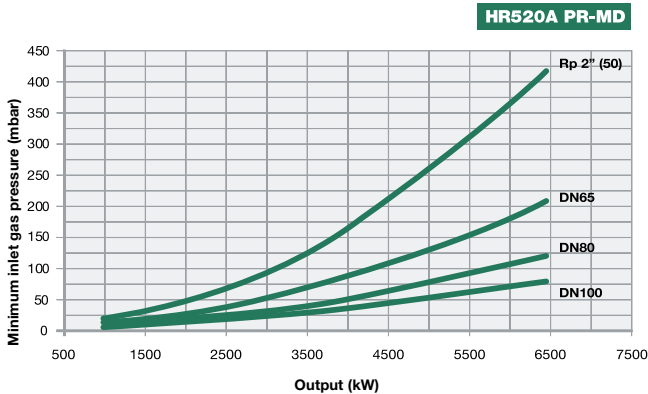
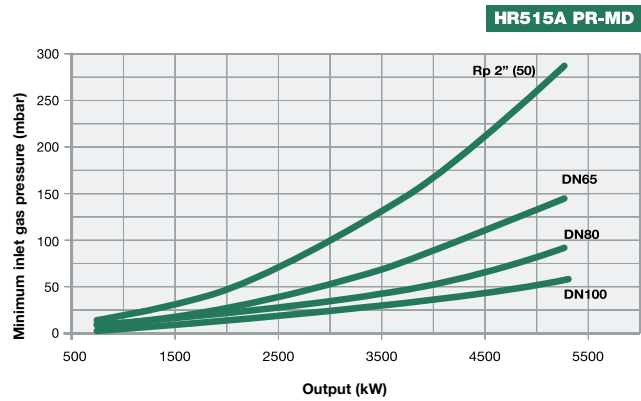
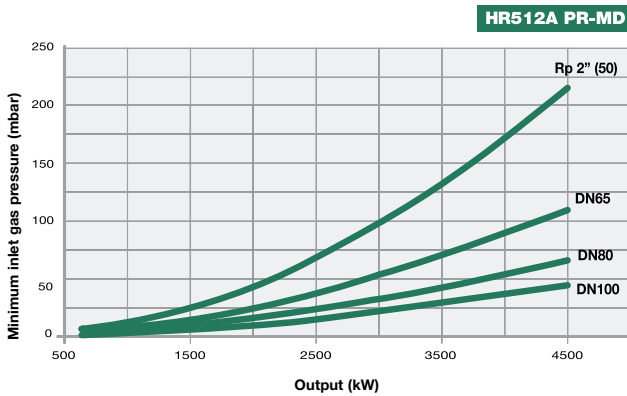
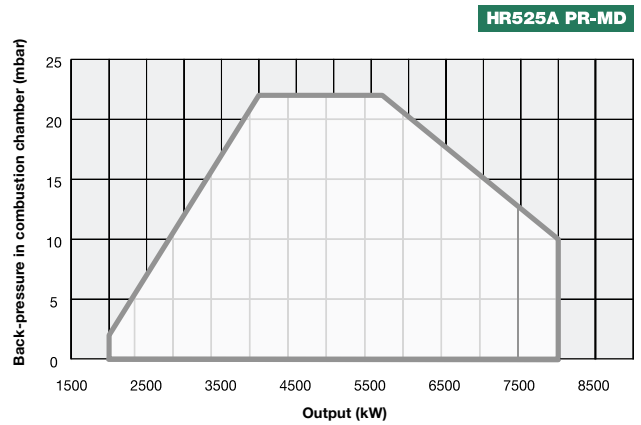
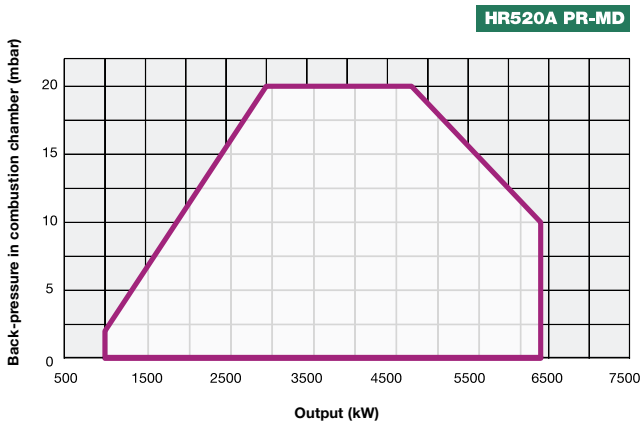
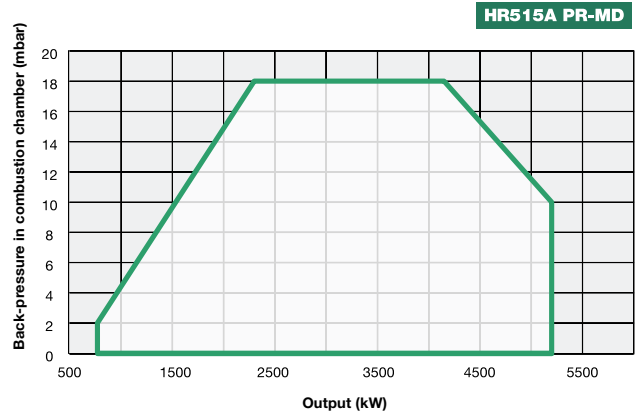
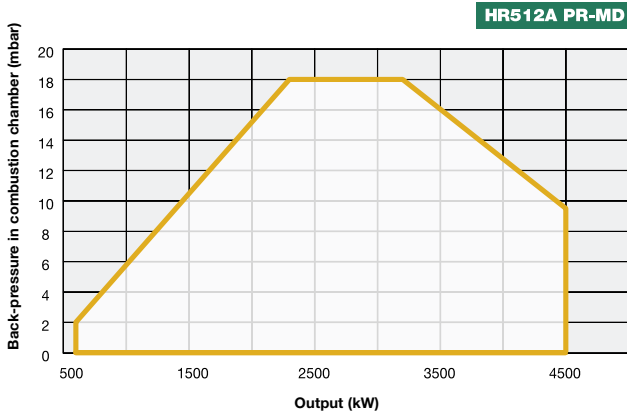
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

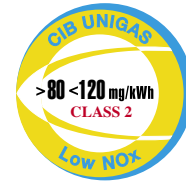


HR512A HR515A **cinquecento** SERIES HR520A HR525A



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

CINQUECENTO SERIES K750A K890A K990A



GAS/LIGHT OIL

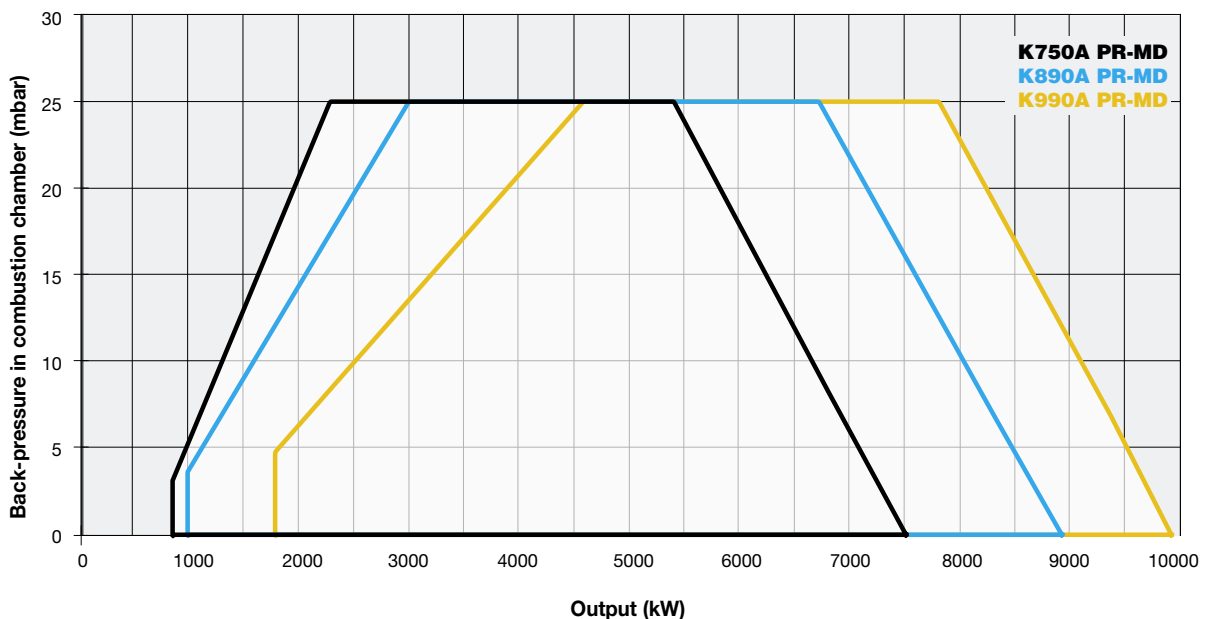
NEW

The new standard K type CINQUECENTO series **Low NO_x** burners **Class 2 (< 120 mg/kWh)**, made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

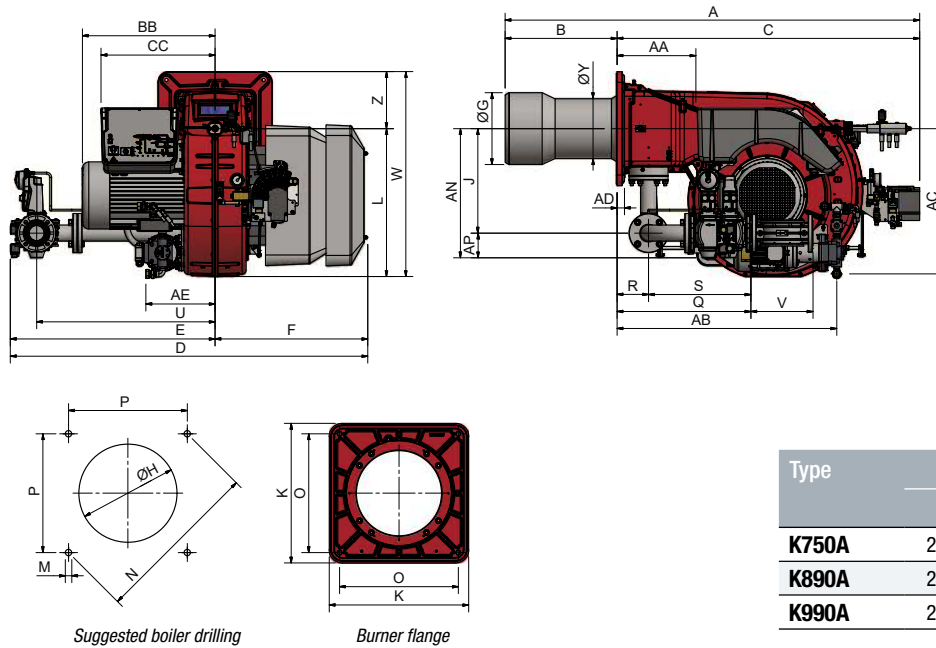




TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
K750A	MG.xx.SR.xx.A.1.xxx	880	7.500	230V 1NAC 50 Hz	400V 3AC 50 Hz	15,0	2,2	DN65 - DN80 - DN100 - DN125	< 85
K890A	MG.xx.SR.xx.A.1.xxx	1.000	8.900	230V 1NAC 50 Hz	400V 3AC 50 Hz	15,0	3	DN65 - DN80 - DN100 - DN125	< 85
K990A	MG.xx.SR.xx.A.1.xxx	1.820	9.900	230V 1NAC 50 Hz	400V 3AC 50 Hz	15,0	4	DN80 - DN100 - DN125	< 85

For the configuration of the gas train, see page 112-113.

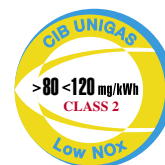


Type	Packaging dimensions (mm)			
	l	p	h	kg
K750A	2180	1450	1220	520
K890A	2180	1450	1220	530
K990A	2180	1450	1220	540

Approximate values (regarding model with gas train DN80)

Type	Model	Overall dimensions (mm)																															
		A	AA	AB	AC	AD	AE	AN	AP	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
K750A	MG.xx.SR.xx.A.1.65	1745	366	1073	670	25	300	611	117	530	626	1215	524	1695	969	726	340	380	494	540	690	M16	651	460	460	637	150	487	845	292	960	328	270
K750A	MG.xx.SR.xx.A.1.80	1745	366	1073	670	25	300	626	132	530	626	1215	524	1728	1002	726	340	380	494	540	690	M16	651	460	460	688	150	538	875	313	960	328	270
K750A	MG.xx.SR.xx.A.1.100	1745	366	1073	670	25	300	639	145	530	626	1215	524	1808	1082	726	340	380	494	540	690	M16	651	460	460	792	150	642	942	353	960	328	270
K750A	MG.xx.SR.xx.A.1.125	1745	366	1073	670	25	300	737	175	530	626	1215	524	2073	1347	726	340	380	562	540	690	M16	651	460	460	904	150	754	1192	479	960	328	270
K890A	MG.xx.SR.xx.A.1.65	1745	366	1073	670	25	300	611	117	530	626	1215	524	1695	969	726	400	440	494	540	690	M16	651	460	460	637	150	487	845	292	960	328	270
K890A	MG.xx.SR.xx.A.1.80	1745	366	1073	670	25	300	626	132	530	626	1215	524	1728	1002	726	400	440	494	540	690	M16	651	460	460	688	150	538	875	313	960	328	270
K890A	MG.xx.SR.xx.A.1.100	1745	366	1073	670	25	300	639	145	530	626	1215	524	1808	1082	726	400	440	494	540	690	M16	651	460	460	792	150	642	942	353	960	328	270
K890A	MG.xx.SR.xx.A.1.125	1745	366	1073	670	25	300	737	175	530	626	1215	524	2073	1347	726	400	440	562	540	690	M16	651	460	460	904	150	754	1192	479	960	328	270
K990A	MG.xx.SR.xx.A.1.80	1745	366	1073	670	25	300	626	132	530	626	1215	524	1728	1002	726	434	484	494	540	690	M16	651	460	460	688	150	538	875	313	960	328	270
K990A	MG.xx.SR.xx.A.1.100	1745	366	1073	670	25	300	639	145	530	626	1215	524	1808	1082	726	434	484	494	540	690	M16	651	460	460	792	150	642	942	353	960	328	270
K990A	MG.xx.SR.xx.A.1.125	1745	366	1073	670	25	300	737	175	530	626	1215	524	2073	1347	726	434	484	562	540	690	M16	651	460	460	904	150	754	1192	479	960	328	270

Approximate values



MECHANICAL OPERATION

Model	Gas train	Operation	K750A		K890A		K990A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.65	DN65	PR (*)	034070153		034070553		-	
MG.PR.SR.xx.A.1.80	DN80	PR (*)	034070253		034070653		034070953	
MG.PR.SR.xx.A.1.100	DN100	PR (*)	034070353		034070753		034071053	
MG.PR.SR.xx.A.1.125	DN 125	PR (*)	034070453		034070853		034071153	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	K750A		K890A		K990A	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03407015C		03407055C		-	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03407025C		03407065C		03407095C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03407035C		03407075C		03407105C	
MG.PR.SR.xx.A.1.125.EC	DN125	PR (*)	03407045C		03407085C		03407115C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	K750A		K890A		K990A	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03407015S		03407055S		-	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03407025S		03407065S		03407095S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03407035S		03407075S		03407105S	
MG.MD.SR.xx.A.1.125.ES	DN 125	MD (**)	03407045S		03407085S		03407115S	

(**) The burners are already MD version.

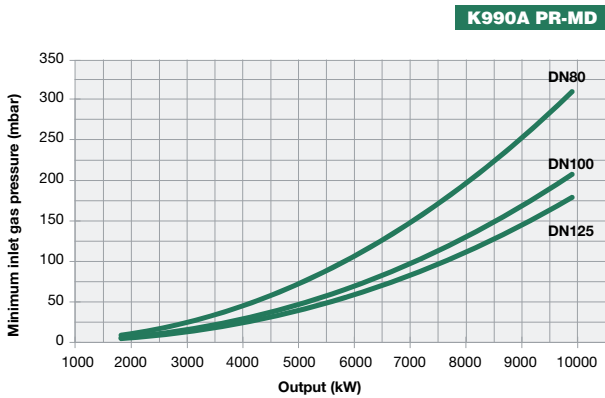
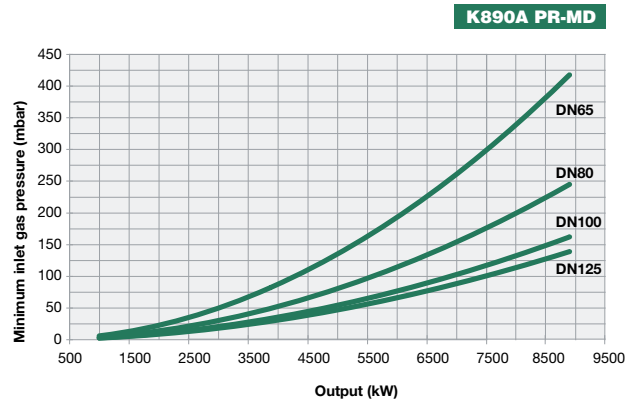
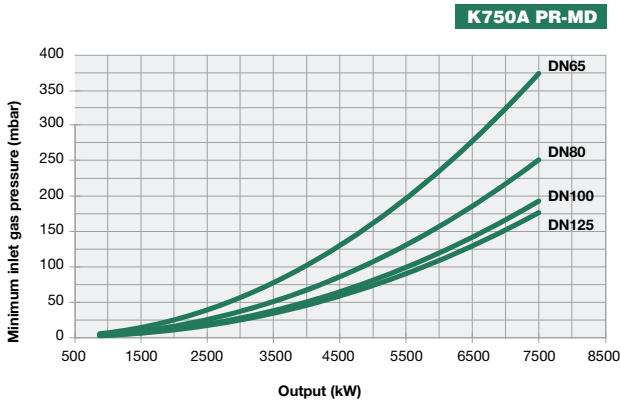
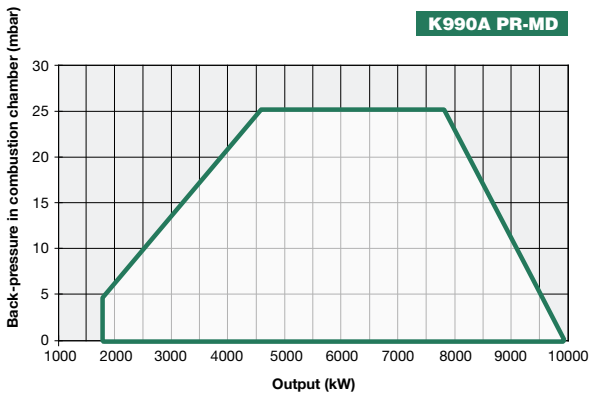
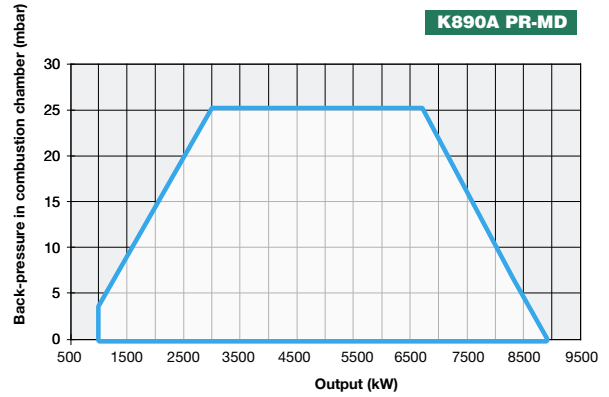
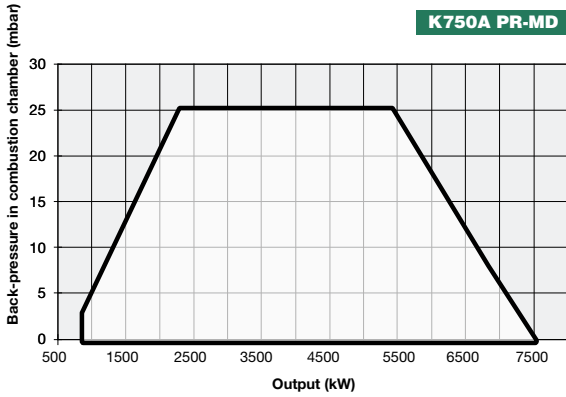
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

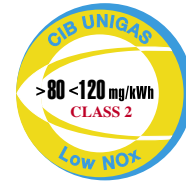


K750A K890A K990A **cinquecento** SERIES



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

mille SERIES HR1025 HR1030 HR1040



GAS/LIGHT OIL

These burners are made of a solid aluminium housing and are suitable both for industrial applications, big heating plants and public users (hospitals, universities, etc.).

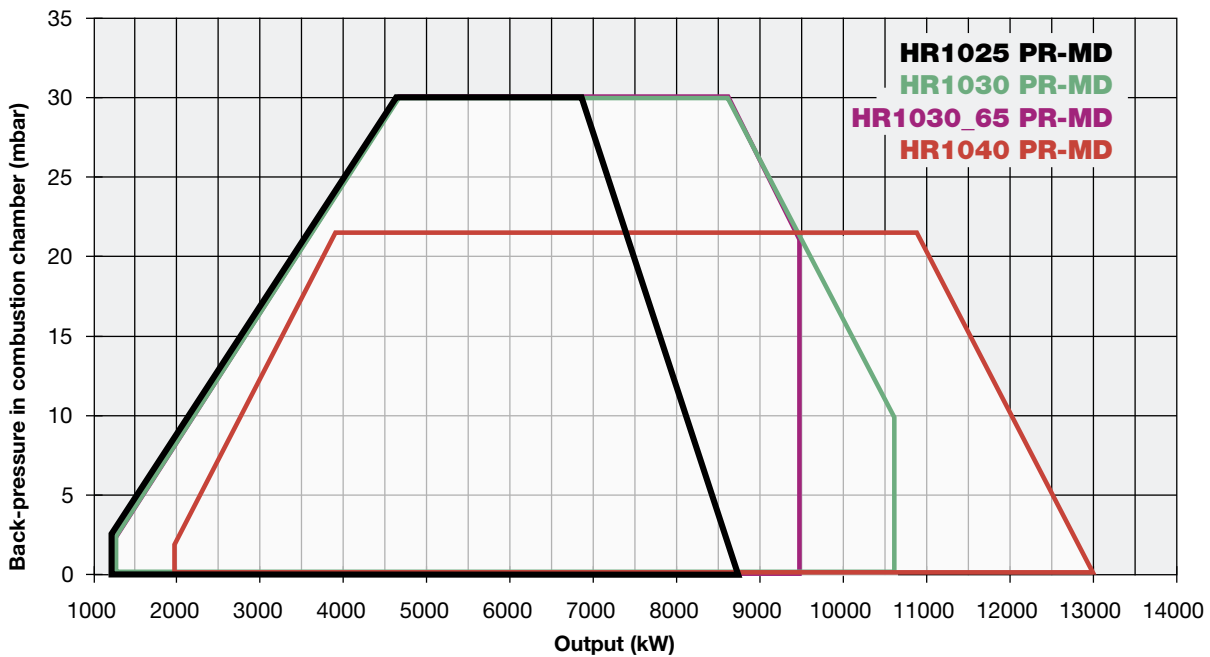
The possibility of using both flues separately, the manageability and the easy maintenance, notwithstanding its big dimensions, make this series of burners really special.

These burners may be produced both in the version of progressive and modulating operation.

Upon request they can be customized through an electronic control system which controls the O₂ flow at any stages, optimizing the efficiency, and through a control panel in form of either remote console type, cabinet type or wall mounted type.



Electronic set up (optional)

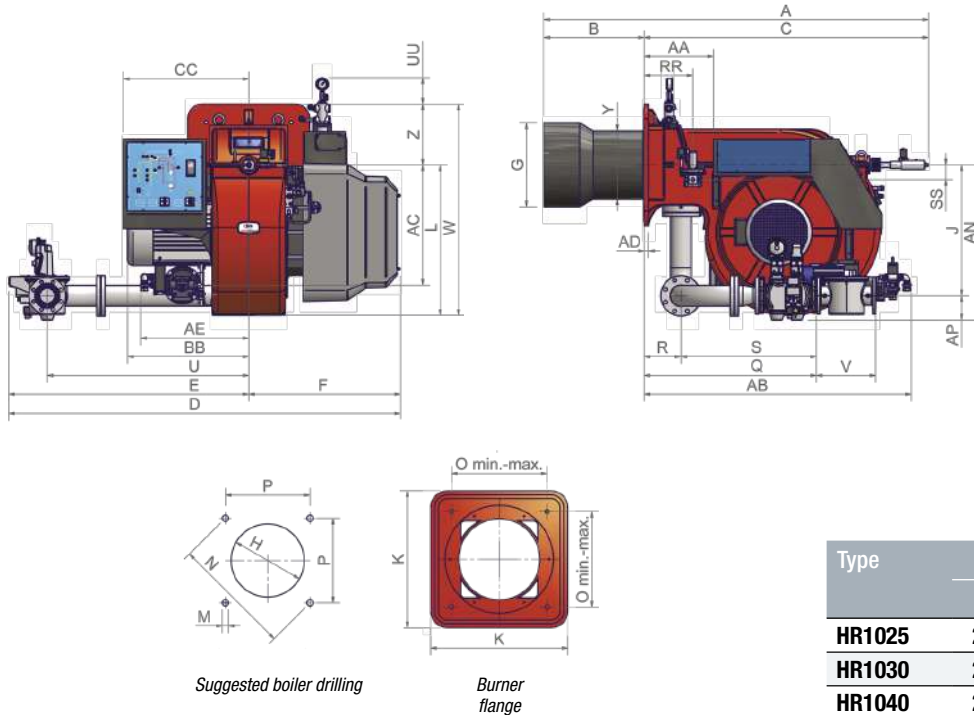




TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
HR1025	MG.xx.S.xx.A.1.xxx	1.200	8.700	230 V 1NAC 50 Hz	400 V 3 AC 50 Hz	18,5	4,0	DN 65 - DN80 - DN100	82,2
HR1030	MG.xx.S.xx.A.1.65	1.200	9.500	230 V 1NAC 50 Hz	400 V 3 AC 50 Hz	22,0	4,0	DN65	85,6
HR1030	MG.xx.S.xx.A.1.xxx	1.200	10.600	230 V 1NAC 50 Hz	400 V 3 AC 50 Hz	22,0	4,0	DN80 - DN100	85,6
HR1040	MG.xx.S.xx.A.1.xxx	2.000	13.000	230 V 1NAC 50 Hz	400 V 3 AC 50 Hz	30,0	5,5	DN80 - DN100 - DN125	85,6

For the configuration of the gas train, see page 112-113.



Type	Packaging dimensions (mm)			
	l	p	h	kg
HR1025	2300	1.720	1410	700
HR1030	2300	1.720	1410	700
HR1040	2300	1.720	1410	700

Approximate values

Type	Model	Overall dimensions (mm)																																		
		A	AA	AB	AC	AD	AE	AN	AP	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	RR	S	SS	U	UU	V	W	Y	Z
HR1025	MG.xx.S.xx.A.1.65	2088	377	1452	651	25	585	827	118	544	641	1544	680	2121	1299	822	400	450	709	660	816	M16	651	460	460	914	200	265	714	80	1092	142	292	1146	379	330
HR1025	MG.xx.S.xx.A.1.80	2088	377	1452	651	25	585	841	132	544	641	1544	680	2123	1301	822	400	450	709	660	816	M16	651	460	460	936	200	265	736	80	1092	142	322	1146	379	330
HR1025	MG.xx.S.xx.A.1.100	2088	377	1452	651	25	585	854	145	544	641	1544	680	2139	1317	822	400	450	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	379	330
HR1030	MG.xx.S.xx.A.1.65	2088	377	1452	651	25	585	827	118	544	657	1544	680	2121	1299	822	454	504	709	660	816	M16	651	460	460	914	200	265	714	80	1092	142	292	1146	372	330
HR1030	MG.xx.S.xx.A.1.80	2088	377	1452	651	25	585	841	132	544	657	1544	680	2123	1301	822	454	504	709	660	816	M16	651	460	460	936	200	265	736	80	1092	142	322	1146	372	330
HR1030	MG.xx.S.xx.A.1.100	2088	377	1452	651	25	585	854	145	544	657	1544	680	2139	1317	822	454	504	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	372	330
HR1040	MG.xx.S.xx.A.1.80	2106	377	1452	651	25	585	841	132	544	657	1562	680	2123	1301	822	514	564	709	660	816	M16	651	460	460	936	200	265	736	80	1092	142	322	1146	408	330
HR1040	MG.xx.S.xx.A.1.100	2106	377	1452	651	25	585	854	145	544	657	1562	680	2139	1317	822	514	564	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	408	330
HR1040	MG.xx.S.xx.A.1.125	2106	377	1452	651	25	585	884	175	544	657	1562	680	2254	1432	822	514	564	709	660	816	M16	651	460	460	954	200	265	754	80	1192	142	480	1146	408	330

Approximate values



MECHANICAL OPERATION

Model	Gas train	Operation	HR1025		HR1030		HR1040	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.S.xx.A.1.65	DN65	PR (*)	023071653		023071953		-	
MG.PR.S.xx.A.1.80	DN80	PR (*)	023071753		023072053		023072253	
MG.PR.S.xx.A.1.100	DN100	PR (*)	023071853		023072153		023072353	
MG.PR.S.xx.A.1.125			-		-		023072453	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HR1025		HR1030		HR1040	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.S.xx.A.1.65.EC	DN65	PR (*)	02307165C		02307195C		-	
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	02307175C		02307205C		02307225C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	02307185C		02307215C		02307235C	
MG.PR.S.xx.A.1.125.EC	DN125	PR (*)	-		-		02307245C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

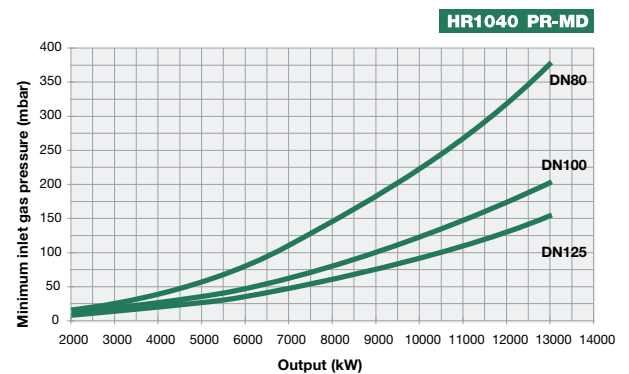
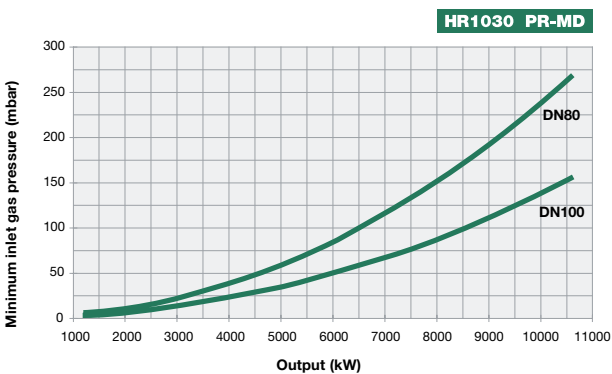
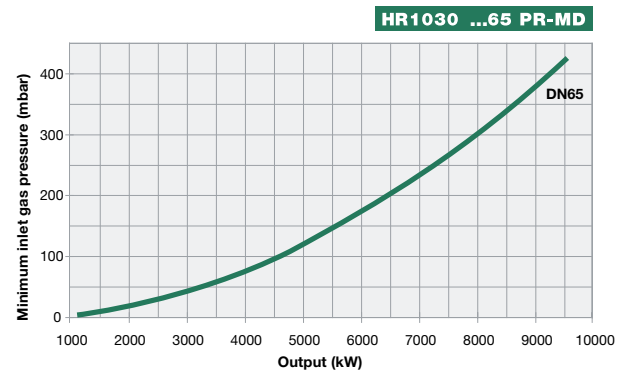
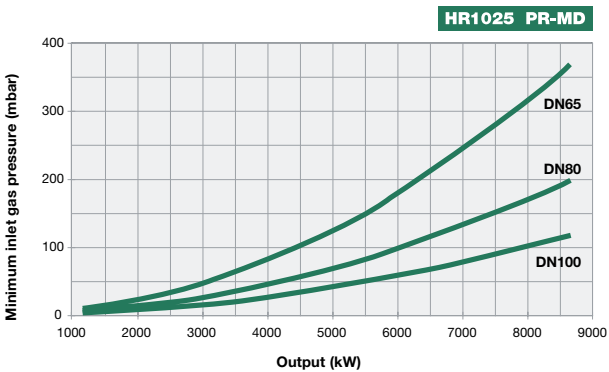
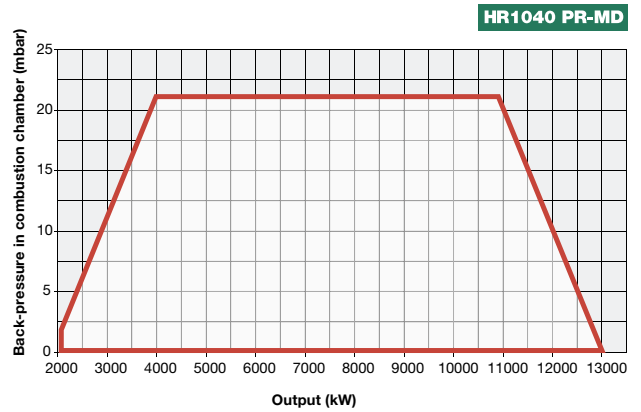
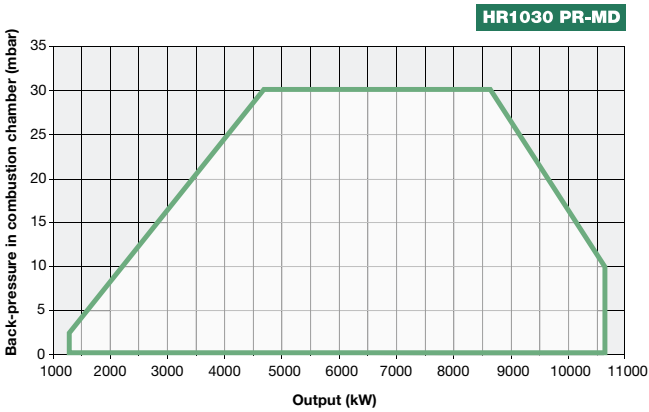
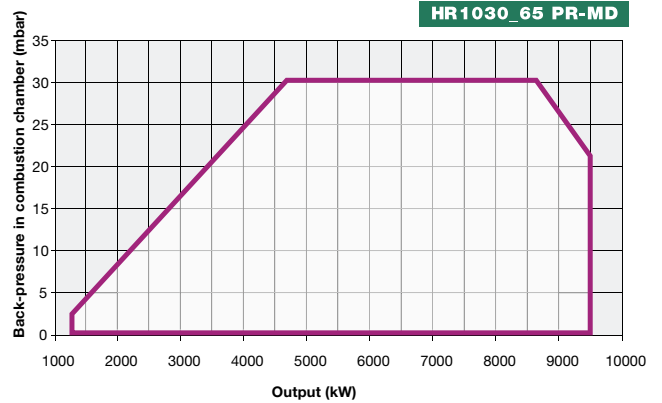
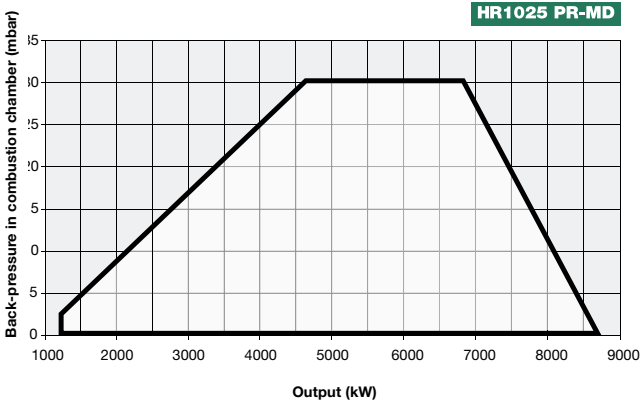
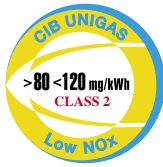
Model	Gas train	Operation	HR1025		HR1030		HR1040	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.S.xx.A.1.65.ES	DN65	MD (**)	02307025S		02307065S		-	
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	02307035S		02307075S		02307095S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	02307045S		02307085S		02307105S	
MG.MD.S.xx.A.1.125.ES	DN125	MD (**)	-		-		02307115S	

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

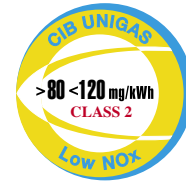
In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

mille SERIES N1060A N1300A



GAS/LIGHT OIL

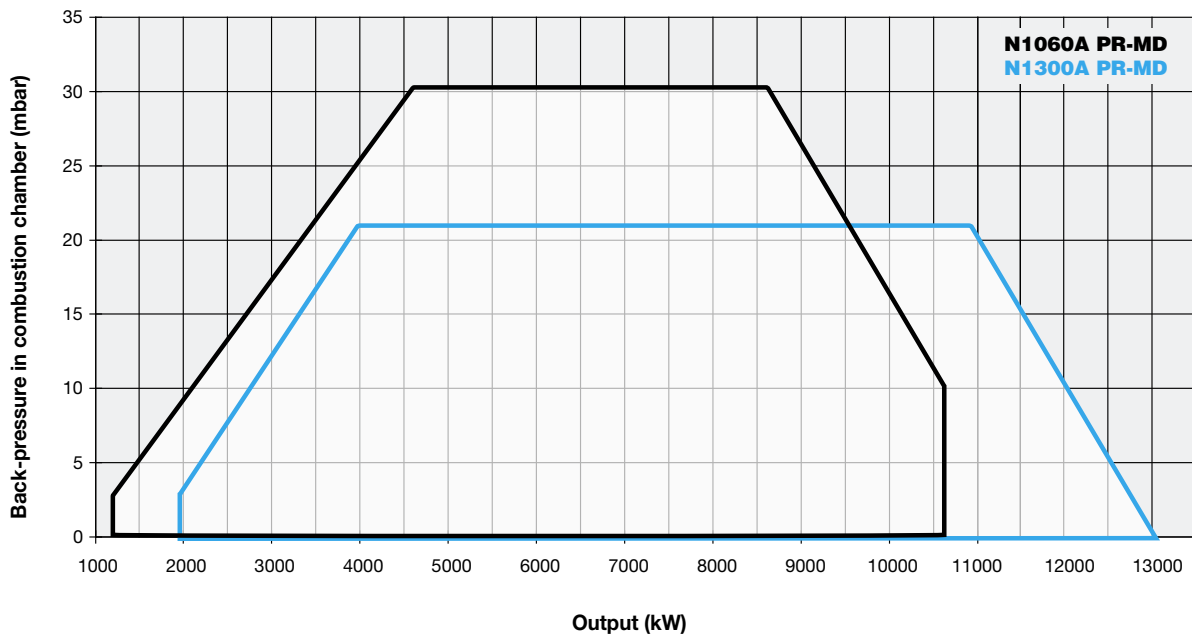
NEW

The new standard N type MILLE series **Low NO_x** burners **Class 2 (< 120 mg/kWh)**, made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

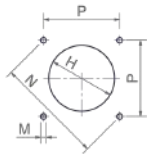
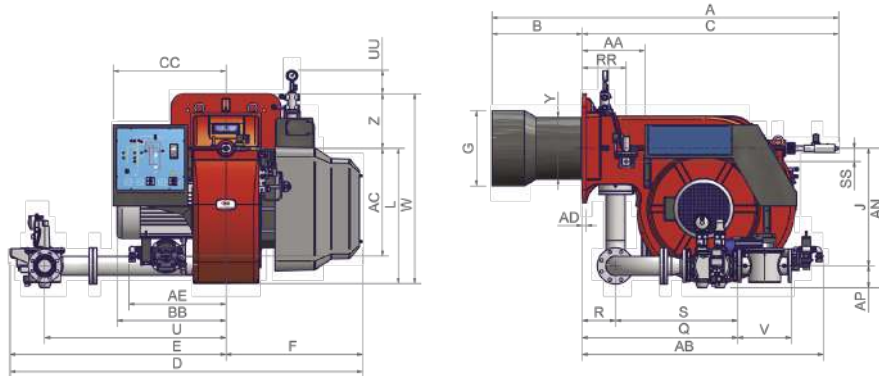




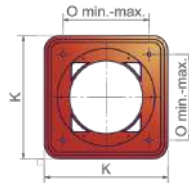
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
N1060A	MG.xx.SR.xx.A.1.xxx	1.200	10.600	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	22,0	4,0	DN80 - DN100 - DN125	< 85,6
N1300A	MG.xx.SR.xx.A.1.xxx	2.000	13.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	30,0	4,0	DN80 - DN100 - DN125	< 85,6

For the configuration of the gas train, see page 112-113.



Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm)			
	l	p	h	kg
N1060A	2.300	1.720	1.410	700
N1300A	2.300	1.720	1.410	700

Approximate values

Type	Model	Overall dimensions (mm)																																		
		A	AA	AB	AC	AD	AE	AN	AP	B	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	RR	S	SS	U	UU	V	W	Y	Z
N1060A	MG.xx.SR.xx.A.1.80	2088	377	1452	651	25	585	841	132	544	657	1544	680	2123	1301	822	454	504	709	660	816	M16	651	460	460	936	200	265	736	80	1092	142	322	1146	372	330
N1060A	MG.xx.SR.xx.A.1.100	2088	377	1452	651	25	585	854	145	544	657	1544	680	2139	1317	822	454	504	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	372	330
N1060A	MG.xx.SR.xx.A.1.125	2088	377	1452	651	25	585	854	145	544	657	1544	680	2139	1317	822	454	504	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	372	330
N1300A	MG.xx.SR.xx.A.1.80	2106	377	1452	651	25	585	841	132	544	657	1562	680	2123	1301	822	514	564	709	660	816	M16	651	460	460	936	200	265	736	80	1092	142	322	1146	408	330
N1300A	MG.xx.SR.xx.A.1.100	2106	377	1452	651	25	585	854	145	544	657	1562	680	2139	1317	822	514	564	709	660	816	M16	651	460	460	842	200	265	642	80	1092	142	382	1146	408	330
N1300A	MG.xx.SR.xx.A.1.125	2106	377	1452	651	25	585	884	175	544	657	1562	680	2254	1432	822	514	564	709	660	816	M16	651	460	460	954	200	265	754	80	1192	142	480	1146	408	330

Approximate values



MECHANICAL OPERATION

Model	Gas train	Operation	N1060A		N1300A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.80	DN80	PR (*)	023073153		023073453	
MG.PR.SR.xx.A.1.100	DN100	PR (*)	023073253		023073553	
MG.PR.SR.xx.A.1.125	DN 125	PR (*)	023073353		023073653	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	N1060A		N1300A	
			Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	02307315C		02307345C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	02307325C		02307355C	
MG.PR.SR.xx.A.1.125.EC	DN125	PR (*)	02307335C		02307365C	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

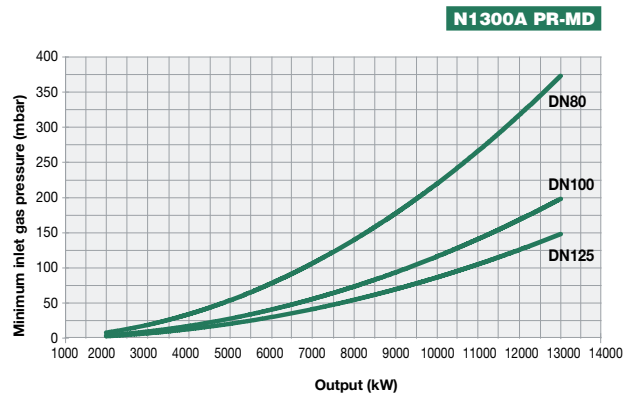
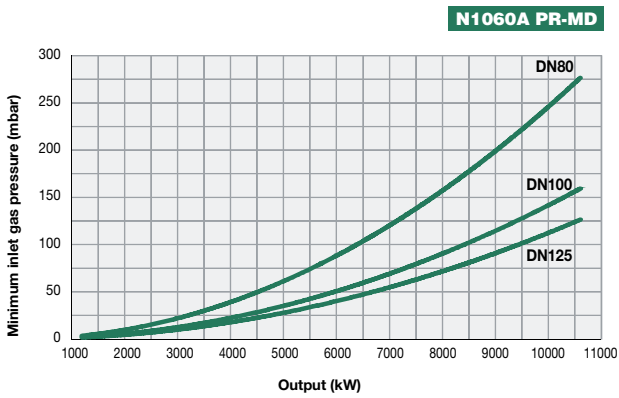
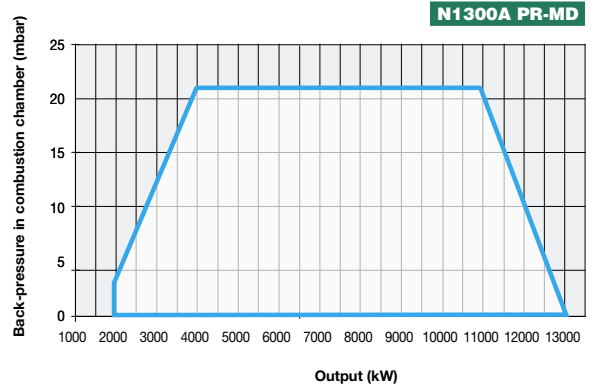
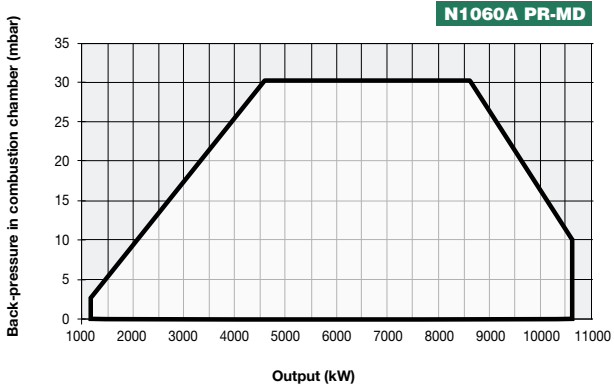
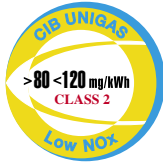
Model	Gas train	Operation	N1060A		N1300A	
			Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	02307315S		02307345S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	02307325S		02307355S	
MG.MD.SR.xx.A.1.125.ES	DN 125	MD (**)	02307335S		02307365S	

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



The DUEMILA series, available in both progressive and modulating operations, represents the culmination of our experience in the field of medium-large capacity burners (up to 19.000 kW). Like all the other dual fuels models, this series perfectly combine the mechanical devices and systems typical of gas burners with the ones of light oil burners. In this manner this series can burn the two flues separately.

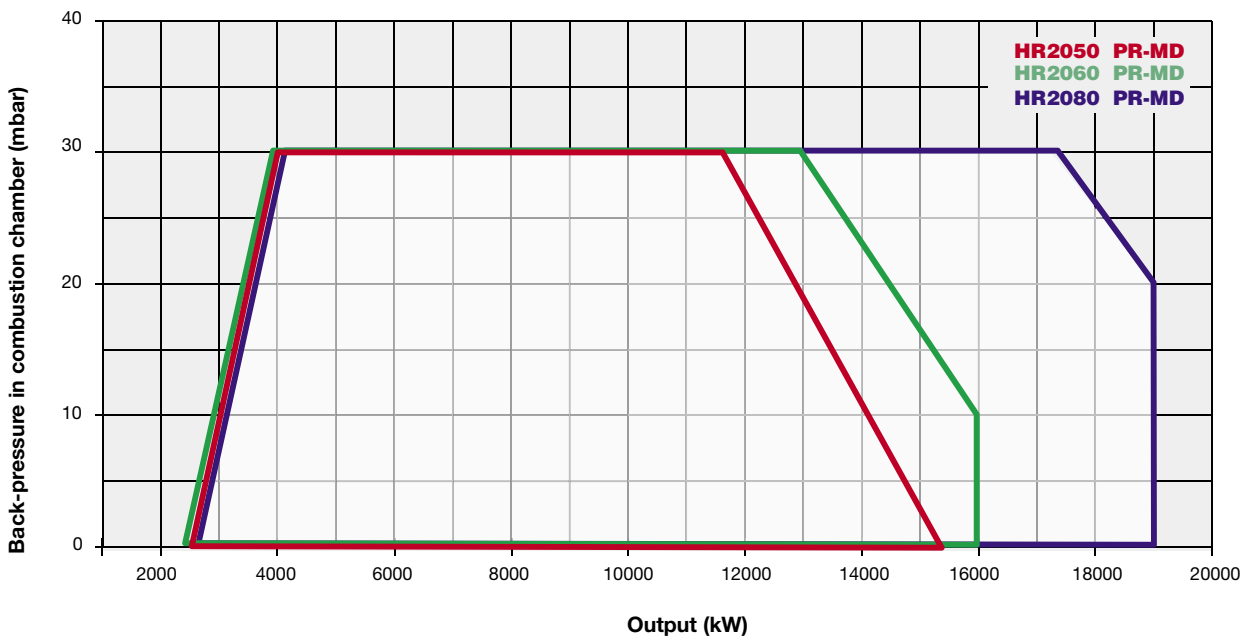
This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump.

As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of burners operation and any abnormalities.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

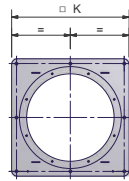
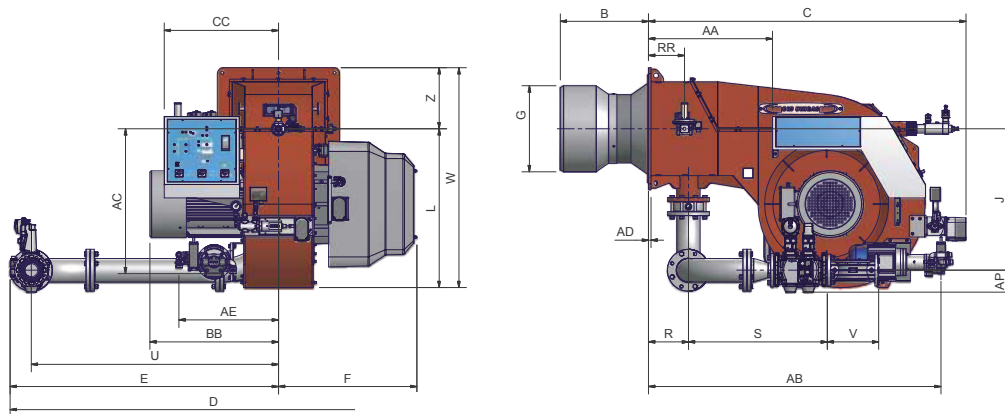




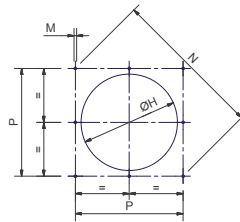
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
HR2050	MG.xx.S.xx.A.1.xxx.xx	2.500	15.200	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	37,0	5,5	DN80 - DN100 - DN125	92,5
HR2060	MG.xx.S.xx.A.1.xxx.xx	2.500	16.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	45,0	5,5	DN80 - DN100 - DN125	91,7
HR2080	MG.xx.S.xx.A.1.xxx.xx	2.500	19.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	55,0	5,5	DN100 - DN125	91,7

For the configuration of the gas train, see page 112-113.



Burner flange



Suggested boiler drilling

Type	Packaging dimensions (mm)			
	l	p	h	kg
HR2050	2.396	1.886	1.969	1.330
HR2060	2.396	1.886	1.969	1.410
HR2080	2.396	1.886	1.969	1.510

Approximate values

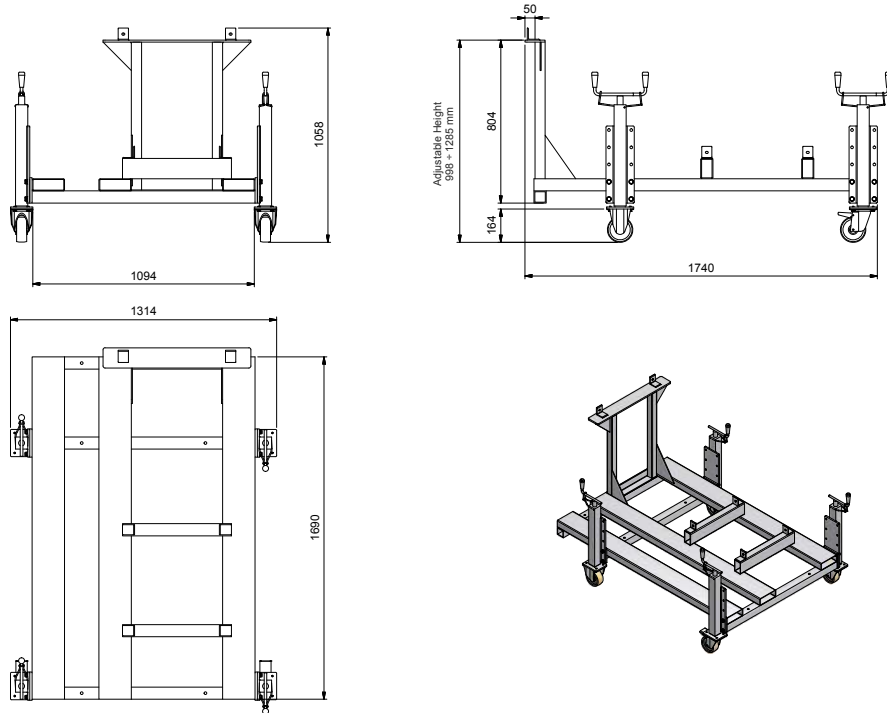
Type	Model	Overall dimensions (mm)																											
		A	AA	AC	AD	AE	AP	B*	BB	C	CC	D	E	F	G*	H*	J	K	L	M	N	P	R	RR	S	U	V	W	Z
HR2050	MG.xx.S.xx.A.1.80.xx	2180	741	866	15	595	132	520	768	1898	735	2431	1604	827	514	564	845	730	949	M16	948	670	239	215	827	1477	310	1314	365
HR2050	MG.xx.S.xx.A.1.100.xx	2180	741	866	15	595	145	520	768	1898	735	2447	1620	827	514	564	845	730	949	M16	948	670	239	215	874	1477	350	1314	365
HR2050	MG.xx.S.xx.A.1.125.xx	2180	741	866	15	595	175	520	768	1898	735	2465	1638	827	514	564	845	730	949	M16	948	670	239	215	755	1477	480	1314	365
HR2060	MG.xx.S.xx.A.1.80.xx	2160	741	866	15	645	132	500	807	1890	735	2309	1463	846	550	600	775	850	949	M16	1117	790	239	215	827	1336	310	1374	425
HR2060	MG.xx.S.xx.A.1.100.xx	2160	741	866	15	645	145	500	807	1890	735	2325	1479	846	550	600	775	850	949	M16	1117	790	239	215	874	1336	350	1374	425
HR2060	MG.xx.S.xx.A.1.125.xx	2160	741	866	15	645	175	500	807	1890	735	2343	1497	846	550	600	775	850	949	M16	1117	790	239	215	755	1336	480	1374	425
HR2080	MG.xx.S.xx.A.1.100.xx	2180	741	866	15	645	145	520	885	1890	735	2325	1479	846	700	750	775	850	949	M16	1117	790	239	215	874	1336	350	1374	425
HR2080	MG.xx.S.xx.A.1.125.xx	2180	741	866	15	645	175	520	885	1890	735	2343	1497	846	700	750	775	850	949	M16	1117	790	239	215	755	1336	480	1374	425

* The B, G, H dimensions must be confirmed from our technical DPT.

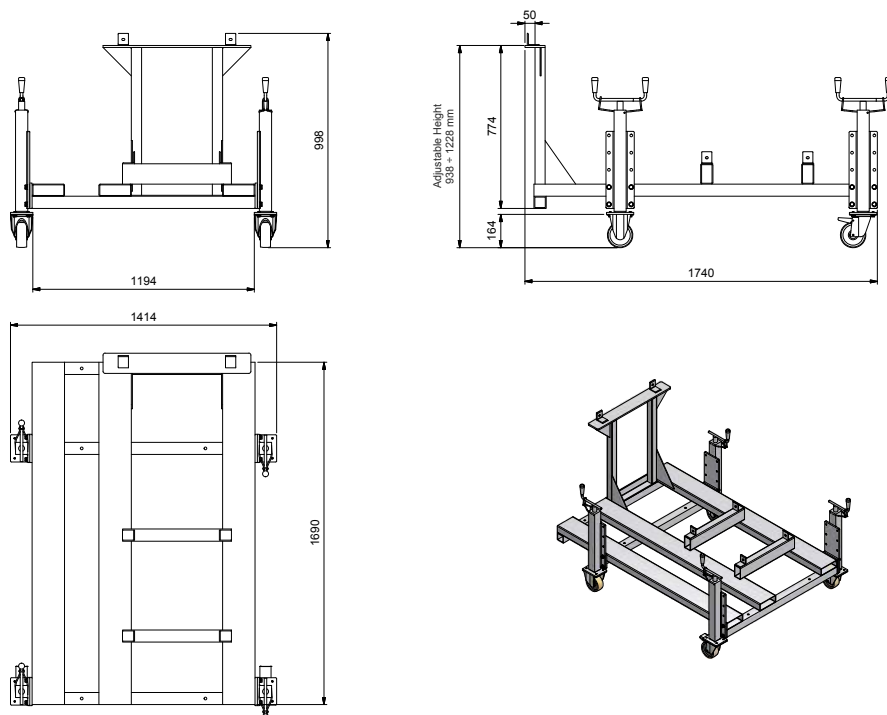
Approximate values

Monoblock burners 2000 series are supplied complete with a steel supporting frame; burner installation and manutention are greatly simplified. The frame is equipped with wheels to easily move the burner, and its height is adjustable to match any type of boiler or furnace.

SUPPORTING FRAME FOR BURNERS 2050 SERIES



SUPPORTING FRAME FOR BURNERS 2060/2080 SERIES




ELECTRONIC OPERATION

Model	Gas train	Operation	HR2050		HR2060		HR2080	
			Code	Price €	Code	Price €	Code	Price €
MG-.PR.S.xx.A.1.80.EC	DN80	PR (*)	03207015C		-		-	
MG-.PR.S.xx.A.1.100.EC	DN100	PR (*)	03207025C		-		-	
MG-.PR.S.xx.A.1.125.EC	DN125	PR (*)	03207035C		-		-	

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

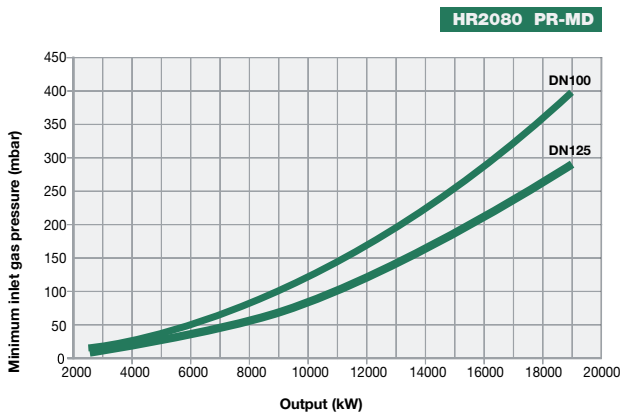
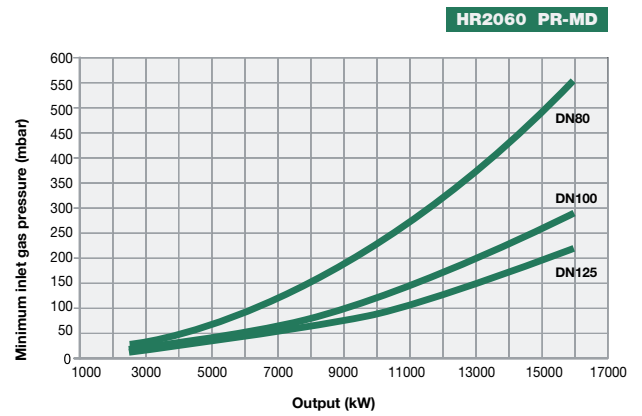
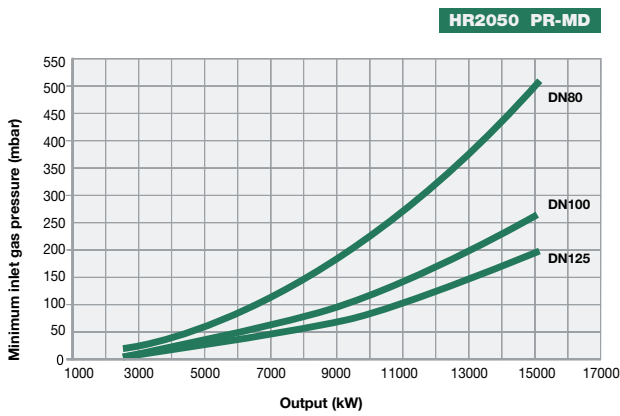
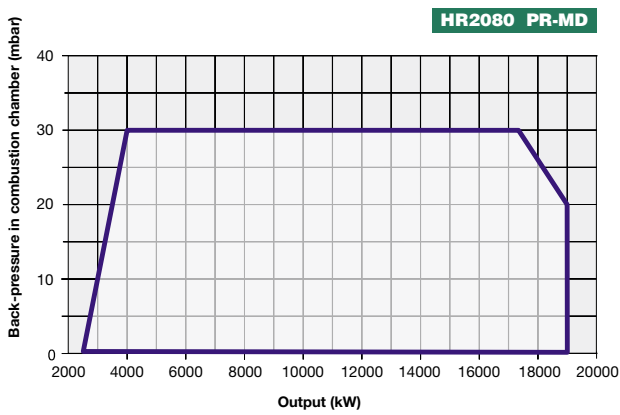
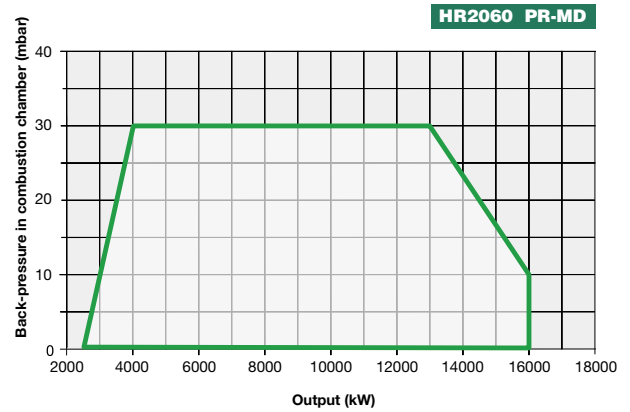
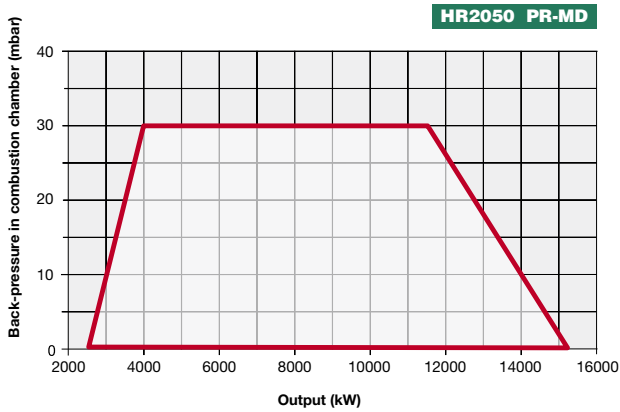
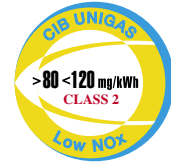
Model	Gas train	Operation	HR2050		HR2060		HR2080	
			Code	Price €	Code	Price €	Code	Price €
MG-.MD.S.xx.A.1.80.ES	DN80	MD (**)	03207015S		03207045S		-	
MG-.MD.S.xx.A.1.100.ES	DN100	MD (**)	03207025S		03207055S		03207085S	
MG-.MD.S.xx.A.1.125.ES	DN125	MD (**)	03207035S		03207065S		03207095S	

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



LOW NO_x DUAL FUEL BURNERS NATURAL GAS/LIGHT OIL

novanta series

HRX92R - PR/MD
HRX92.1 - PR/MD

NEW novanta series

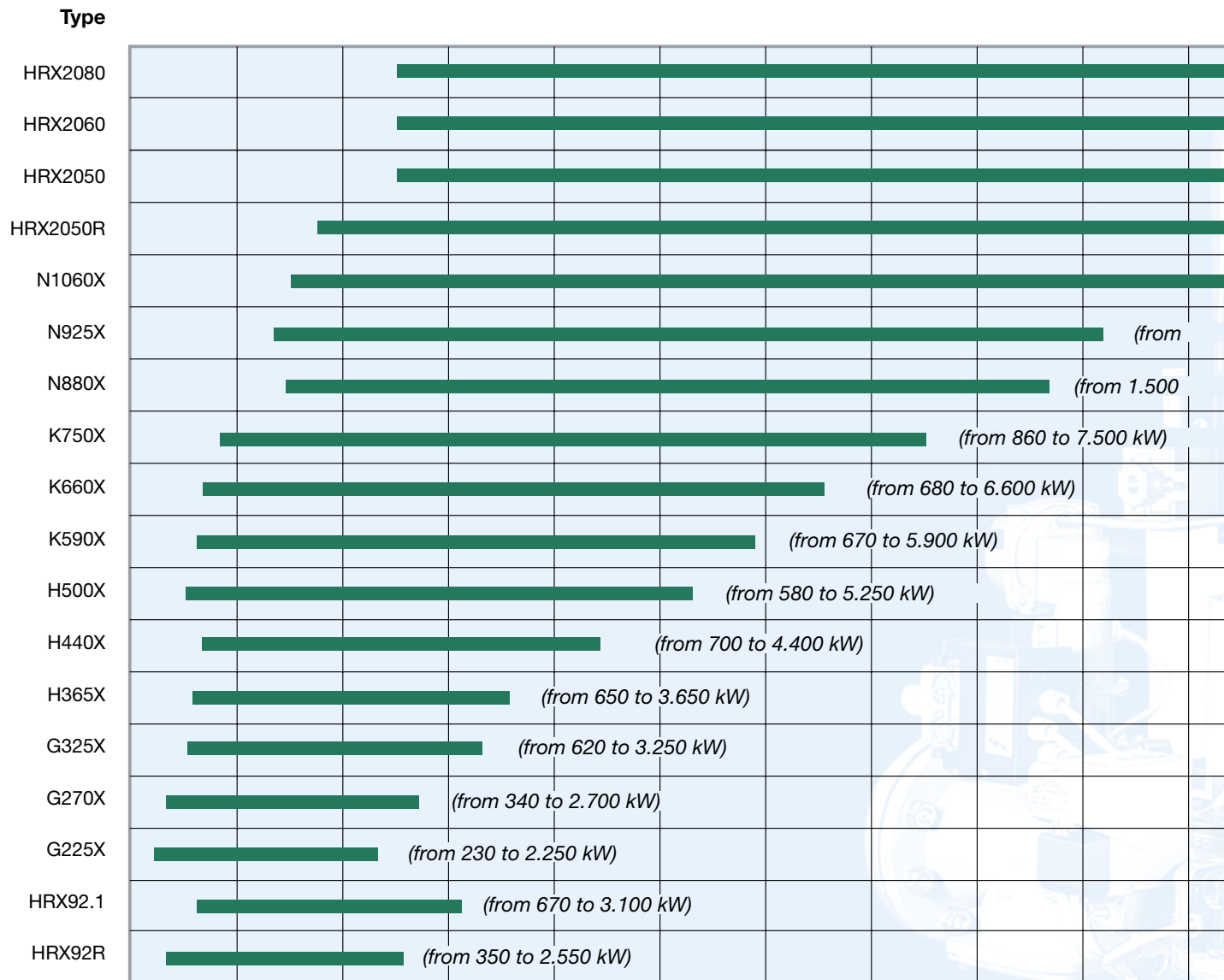
G225X - PR/MD
G270X - PR/MD
G325X - PR/MD

NEW cinquecento series

H365X - PR/MD
H440X - PR/MD
H500X - PR/MD

NEW cinquecento series

K590X - PR/MD
K660X - PR/MD
K750X - PR/MD





NEW mille series

- N880X** - PR/MD
- N925X** - PR/MD
- N1060X** - PR/MD

duemila series

- HRX2050R** - PR/MD
- HRX2050** - PR/MD
- HRX2060** - PR/MD
- HRX2080** - PR/MD

																				(from 2.500 to 19.000 kW)
																				(from 2.500 to 16.000 kW)
																				(from 2.500 to 15.200 kW)
																				(from 1.780 to 13.000 kW)
																				(from 1.550 to 10.600 kW)
																				1.300 to 9.250 kW)
																				to 8.800 kW)

novanta SERIES HRX92R HRX92.1



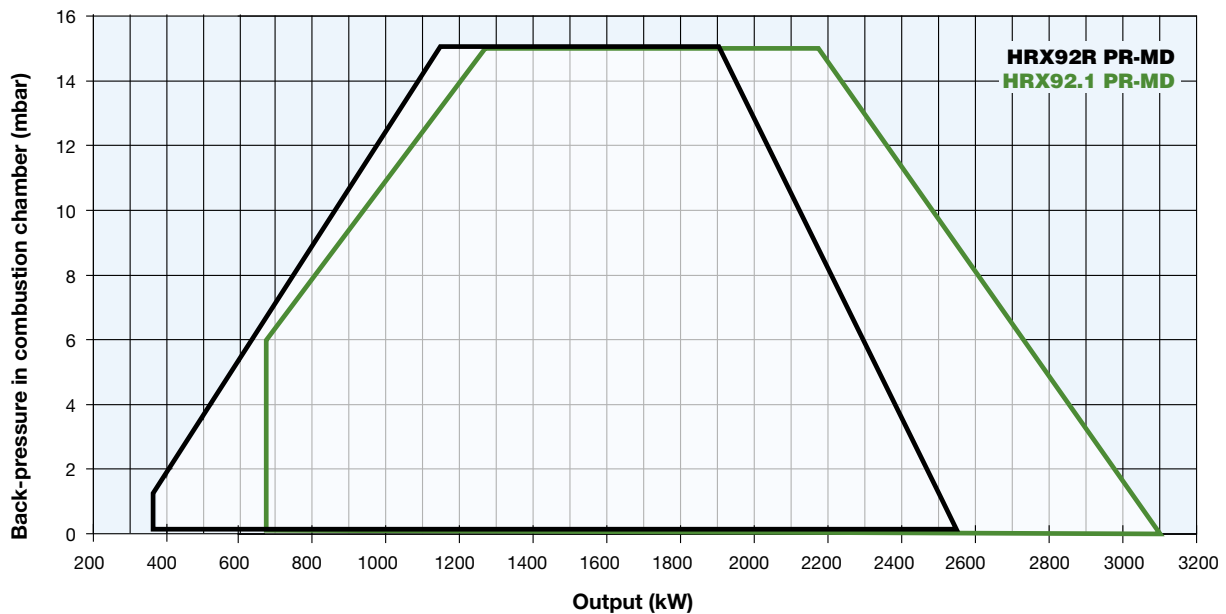
GAS/LIGHT OIL

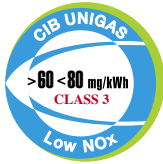
The NOVANTA series, available in both progressive and modulating operations, represents the culmination of our experience in the field of medium-large capacity burners. Like all the other dual fuels models, this series perfectly combines all the mechanisms to work with the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing, the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

The control panel is printed with a mimic diagram fitted with neon lamps to indicate the different stages of burners operation and any abnormalities. Therefore, the burners are provided with an UV photocell to control the flame during the operation.

This series of burners integrate our well known performance and reliability characteristics with the new air inlet system equipped with a silencer and a new combustion head which guarantees low pollutant emissions (gas side < 80mg/kWh Class 3 EN676).

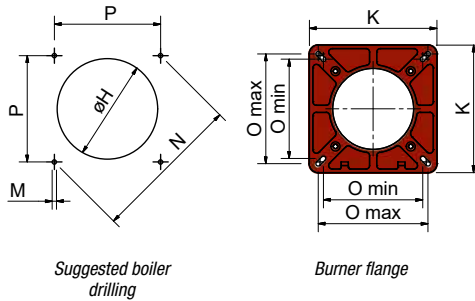
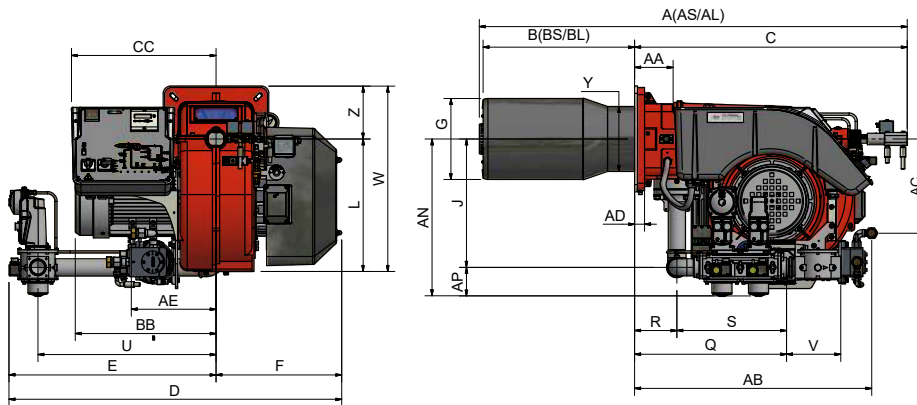




TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
HRX92R	MG.xx.x.xx.A.1.xxx	350	2.550	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	74,5
HRX92.1	MG.xx.x.xx.A.1.xxx	670	3.100	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	76,9

For the configuration of the gas train, see page 112-113.



Type	Packaging dimensions (mm)			
	l	p	h	kg
HRX92R	1730	1280	1020	315
HRX92.1	1730	1280	1020	315

Approximate values

Type	Model	Overall dimensions (mm)																																		
		AS	AL	AA	AB	AC	AD	AE	AN	AP	BS	BL	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z	
HRX92R	MG-.xx.x.xx.A.1.50	1368	1509	135	831	330	35	297	550	100	390	490	493	978	506	1160	725	435	259	289	450	360	524	M12	424	280	310	300	532	148	384	624	190	709	228	185
HRX92R	MG.xx.x.xx.A.1.65	1368	1509	135	831	330	35	297	564	117	390	490	493	978	506	1406	971	435	259	289	447	360	524	M12	424	280	310	300	632	148	484	846	292	709	228	185
HRX92R	MG.xx.x.xx.A.1.80	1368	1509	135	831	330	35	297	579	132	390	490	493	978	506	1437	1002	435	259	289	447	360	524	M12	424	280	310	300	683	148	535	875	313	709	228	185
HRX92R	MG.xx.x.xx.A.1.100	1368	1509	135	831	330	35	297	592	145	390	490	493	978	506	1520	1085	435	259	289	447	360	524	M12	424	280	310	300	790	148	642	942	353	709	228	185
HRX92.1	MG.xx.x.xx.A.1.50	1345	1486	135	831	330	35	297	550	100	420	530	493	955	506	1160	725	435	284	314	450	360	524	M12	424	280	310	300	532	148	384	624	190	709	228	185
HRX92.1	MG.xx.x.xx.A.1.65	1345	1486	135	831	330	35	297	564	117	420	530	493	955	506	1406	971	435	284	314	447	360	524	M12	424	280	310	300	632	148	484	846	292	709	228	185
HRX92.1	MG.xx.x.xx.A.1.80	1345	1486	135	831	330	35	297	579	132	420	530	493	955	506	1437	1002	435	284	314	447	360	524	M12	424	280	310	300	683	148	535	875	313	709	228	185
HRX92.1	MG.xx.x.xx.A.1.100	1345	1486	135	831	330	35	297	592	145	420	530	493	955	506	1520	1085	435	284	314	447	360	524	M12	424	280	310	300	790	148	642	942	353	709	228	185

Approximate values

ELECTRONIC OPERATION

Model	Gas train	Operation	HRX92R		HRX92.1	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.50.EC	2"	PR (*)	01207555C		01207635C	
MG.PR.S.xx.A.1.65.EC	DN65	PR (*)	01207575C		01207655C	
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	01207595C		01207675C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	01207615C		01207695C	

S = Standard combustion head (BS)

L = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HRX92R		HRX92.1	
			Code	Price €	Code	Price €
MG.MD.S.xx.A.1.50.ES	2"	MD (**)	01207555S		01207635S	
MG.MD.S.xx.A.1.65.ES	DN65	MD (**)	01207575S		01207655S	
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	01207595S		01207675S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	01207615S		01207695S	

S = Standard combustion head (BS)

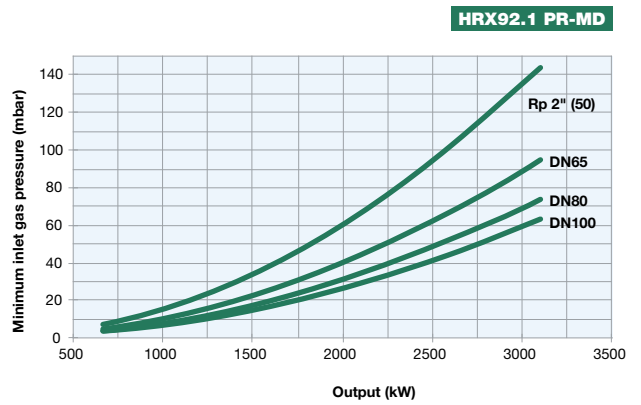
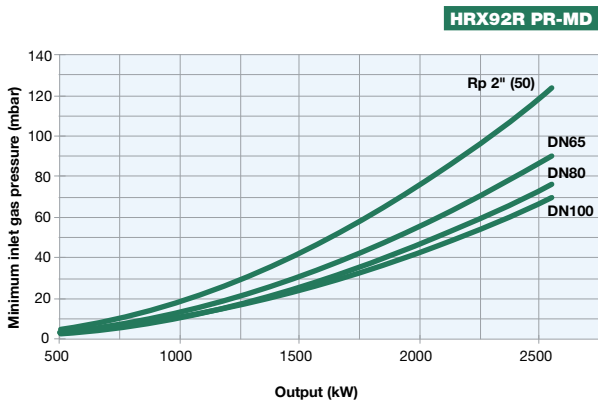
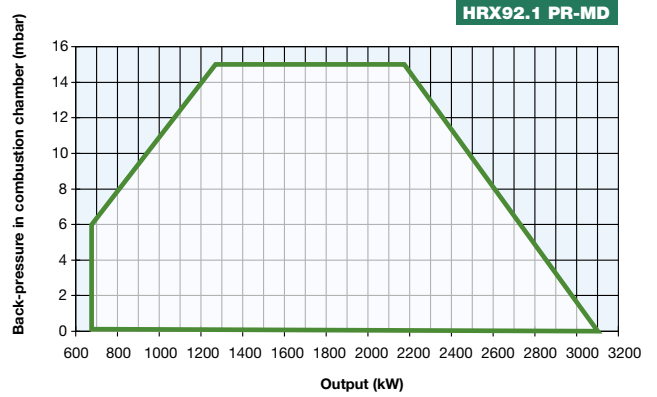
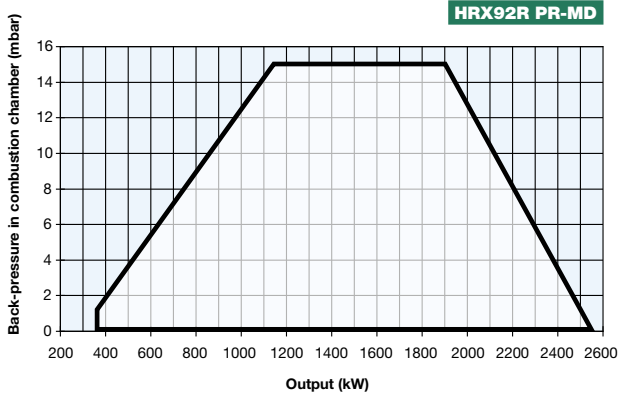
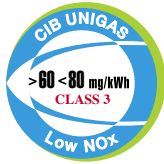
L = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

novanta SERIES **G225X G270X G325X**



GAS/LIGHT OIL

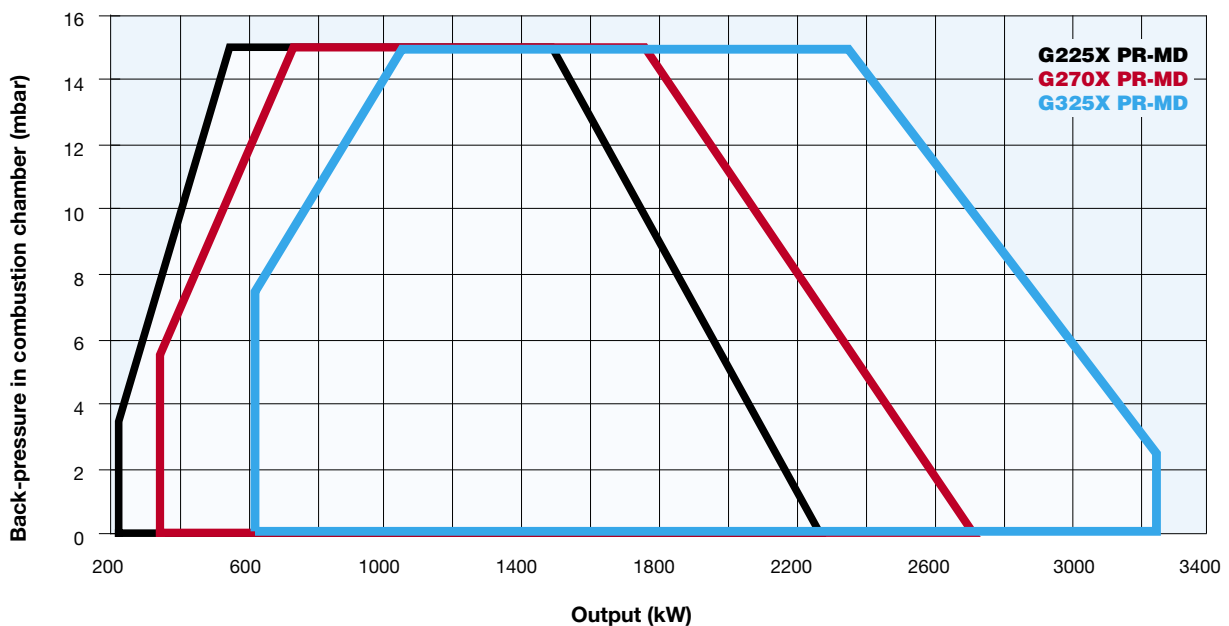
NEW

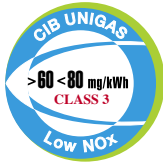
The new G type NOVANTA series **Low NO_x** burners (gas side < 80 mg/kWh Class 3 EN676), made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions. In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.



These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

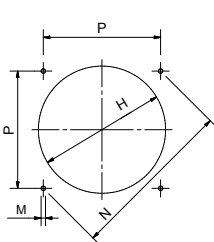
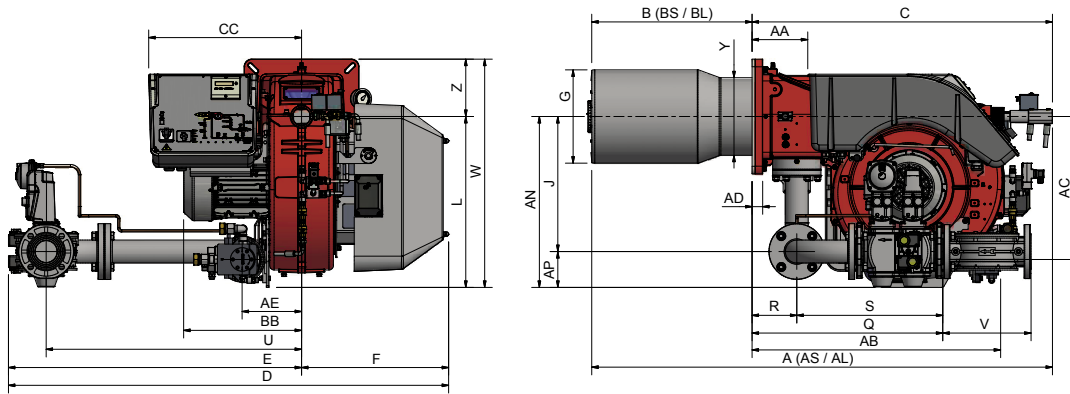




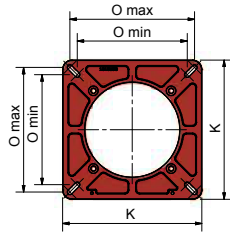
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
G225X	MG.xx.xR.xx.A.1.xxx	230	2.250	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	5,5	1,1	2" - DN65 - DN80 - DN100	< 85
G270X	MG.xx.xR.xx.A.1.xxx	340	2.700	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	5,5	1,1	2" - DN65 - DN80 - DN100	< 85
G325X	MG.xx.xR.xx.A.1.xxx	620	3.250	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	< 85

For the configuration of the gas train, see page 112-113.



Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm)			
	l	p	h	kg
G225X	1680	1200	1050	325
G270X	1680	1200	1050	325
G325X	1680	1200	1050	330

Approximate values

Type	Model	Overall dimensions (mm)																																		
		AS	AL	AA	AB	AC	AD	AE	AN	AP	BS	BL	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O min.	O max.	P	Q	R	S	U	V	W	Y	Z
G225X	MG.xx.SR.xx.A.1.50	1360	1460	181	823	474	35	197	550	100	380	480	395	980	509	1198	725	473	259	290	450	380	518	M12	453	300	340	320	533	149	384	624	190	708	257	190
G225X	MG.xx.SR.xx.A.1.65	1360	1460	181	823	474	35	197	564	117	380	480	395	980	509	1443	970	473	259	290	447	380	518	M12	453	300	340	320	636	149	487	845	292	708	257	190
G225X	MG.xx.SR.xx.A.1.80	1360	1460	181	823	474	35	197	579	132	380	480	395	980	509	1475	1002	473	259	290	447	380	518	M12	453	300	340	320	687	149	538	875	310	708	257	190
G225X	MG.xx.SR.xx.A.1.100	1360	1460	181	823	474	35	197	592	145	380	480	395	980	509	1558	1085	473	259	290	447	380	518	M12	453	300	340	320	791	149	642	942	353	708	257	190
G270X	MG.xx.SR.xx.A.1.50	1401	1501	181	823	474	35	197	550	100	380	480	395	1021	509	1251	725	526	259	290	450	380	518	M12	453	300	340	320	533	149	384	624	190	708	257	190
G270X	MG.xx.SR.xx.A.1.65	1401	1501	181	823	474	35	197	564	117	380	480	395	1021	509	1496	970	526	259	290	447	380	518	M12	453	300	340	320	636	149	487	845	292	708	257	190
G270X	MG.xx.SR.xx.A.1.80	1401	1501	181	823	474	35	197	579	132	380	480	395	1021	509	1528	1002	526	259	290	447	380	518	M12	453	300	340	320	687	149	538	875	310	708	257	190
G270X	MG.xx.SR.xx.A.1.100	1401	1501	181	823	474	35	197	592	145	380	480	395	1021	509	1611	1085	526	259	290	447	380	518	M12	453	300	340	320	791	149	642	942	353	708	257	190
G325X	MG.xx.SR.xx.A.1.50	1451	1551	181	823	474	35	197	550	100	430	530	471	1021	509	1212	725	526	284	320	450	380	518	M12	453	300	340	320	533	149	384	624	190	708	257	190
G325X	MG.xx.SR.xx.A.1.65	1451	1551	181	823	474	35	197	564	117	430	530	471	1021	509	1496	970	526	284	320	447	380	518	M12	453	300	340	320	636	149	487	845	292	708	257	190
G325X	MG.xx.SR.xx.A.1.80	1451	1551	181	823	474	35	197	579	132	430	530	471	1021	509	1528	1002	526	284	320	447	380	518	M12	453	300	340	320	687	149	538	875	310	708	257	190
G325X	MG.xx.SR.xx.A.1.100	1451	1551	181	823	474	35	197	592	145	430	530	471	1021	509	1611	1085	526	284	320	447	380	518	M12	453	300	340	320	791	149	642	942	353	708	257	190

Approximate values



ELECTRONIC OPERATION

Model	Gas train	Operation	G225X		G270X		G325X	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03607095C		03607175C		03607255C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03607115C		03607195C		03607275C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03607135C		03607215C		03607295C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03607155C		03607235C		03607315C	

SR = Standard combustion head (BS)

LR = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	G225X		G270X		G325X	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03607095S		03607175S		03607255S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03607115S		03607195S		03607275S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03607135S		03607215S		03607295S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03607155S		03607235S		03607315S	

SR = Standard combustion head (BS)

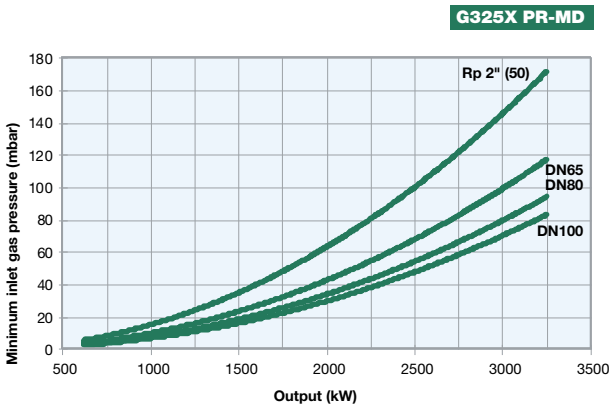
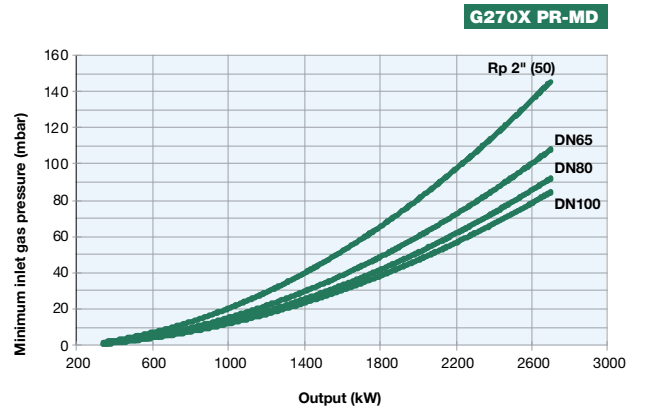
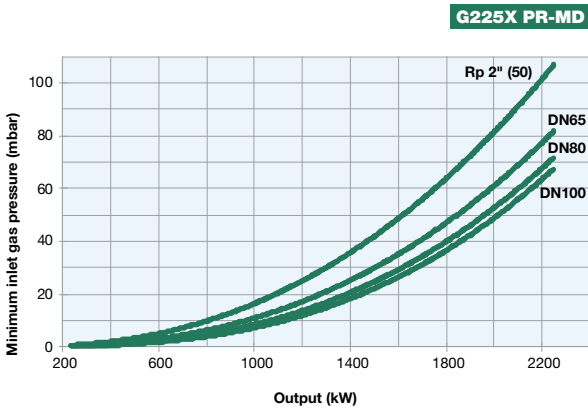
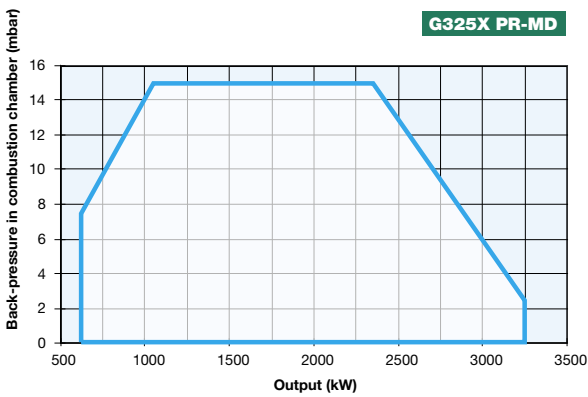
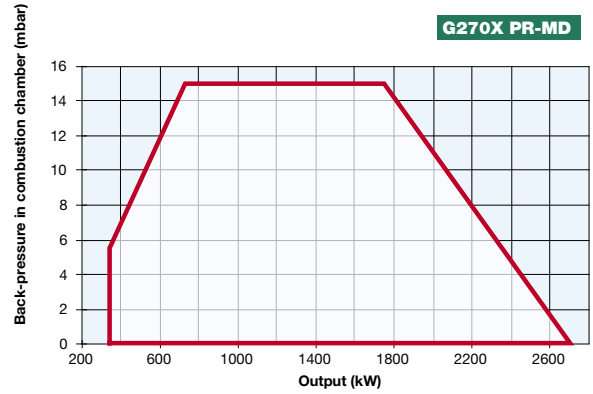
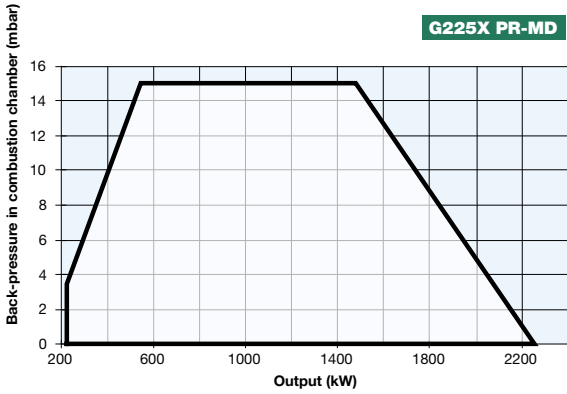
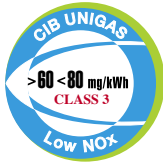
LR = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

CINQUECENTO SERIES H365X H440X H500X



GAS/LIGHT OIL

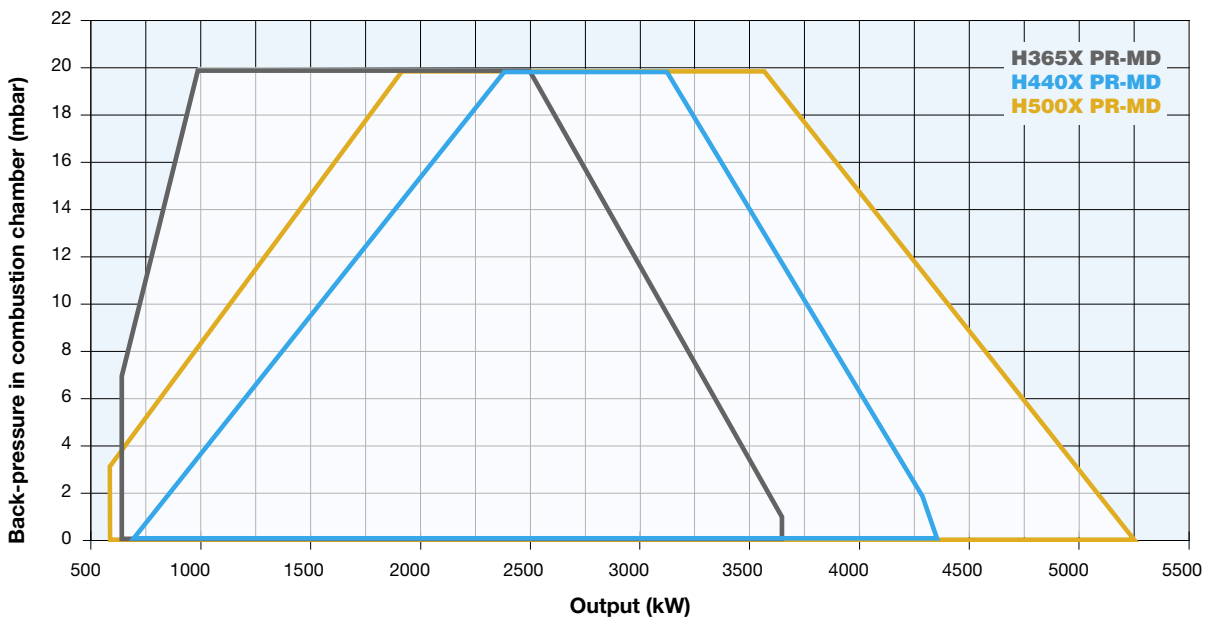
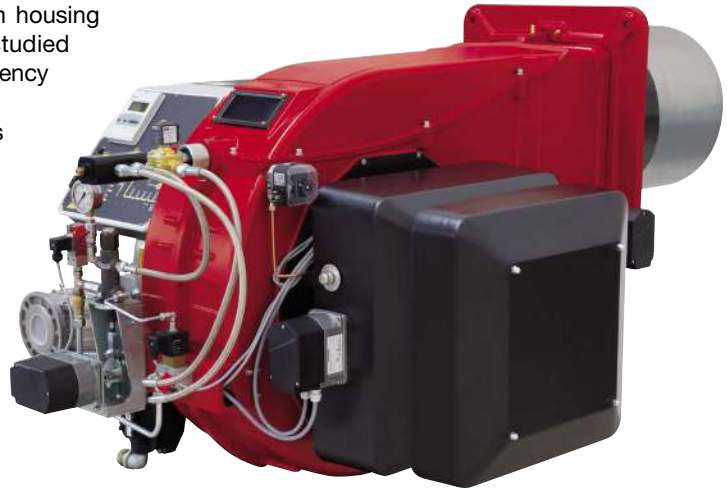
NEW

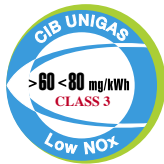
The new H type CINQUECENTO series **Low NO_x** burners (gas side < 80 mg/kWh Class 3 EN676), made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

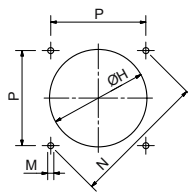
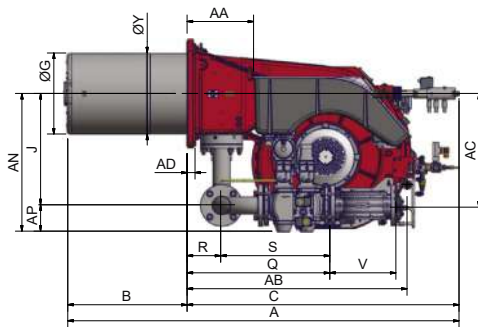
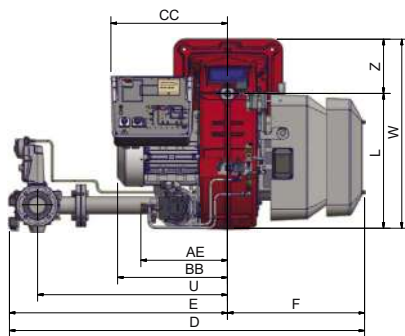




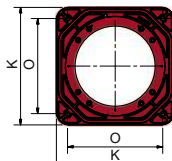
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections Rp	Noise level dBA
		min.	max.						
H365X	MG.xx.xR.xx.A.1.xxx	650	3.650	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	7,5	1,1	2" - DN65 - DN80 - DN100	< 85
H440X	MG.xx.xR.xx.A.1.xxx	700	4.400	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	9,2	1,5	2" - DN65 - DN80 - DN100	< 85
H500X	MG.xx.xR.xx.A.1.xxx	580	5.250	230V 1NAC 50 Hz	400 V 3 AC 50 Hz	9,2	1,5	2" - DN65 - DN80 - DN100	< 85

For the configuration of the gas train, see page 112-113.



Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm)			
	l	p	h	kg
H365X	1890	1290	1220	360
H440X	1890	1290	1220	410
H500X	1890	1290	1220	415

Approximate values (regarding model with gas train DN80)

Type	Model	Overall dimensions (mm)																																	
		AS	AL	AA	AB	AC	AD	AE	AN	AP	BS	BL	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
H365X	MG.xx.xR.xx.A.1.50	1640	1740	295	1024	419	25	210	595	100	430	530	471	1210	511	1554	946	608	284	316	494	540	586	M14	552	390	390	764	150	613	845	190	856	284	270
H365X	MG.xx.xR.xx.A.1.65	1640	1740	295	1024	419	25	210	611	117	430	530	471	1210	511	1577	969	608	284	316	494	540	586	M14	552	390	390	634	150	484	845	294	856	284	270
H365X	MG.xx.xR.xx.A.1.80	1640	1740	295	1024	419	25	210	626	132	430	530	471	1210	511	1610	1002	608	284	316	494	540	586	M14	552	390	390	686	150	535	875	313	856	284	270
H365X	MG.xx.xR.xx.A.1.100	1640	1740	295	1024	419	25	210	639	145	430	530	471	1210	511	1690	1082	608	284	316	494	540	586	M14	552	390	390	791	150	642	942	353	856	284	270
H440X	MG.xx.xR.xx.A.1.50	1640	1740	295	1024	419	25	210	595	100	430	530	488	1210	511	1554	946	608	328	370	494	540	586	M14	552	390	390	764	150	613	845	190	856	328	270
H440X	MG.xx.xR.xx.A.1.65	1640	1740	295	1024	419	25	210	611	117	430	530	488	1210	511	1577	969	608	328	370	494	540	586	M14	552	390	390	634	150	484	845	294	856	328	270
H440X	MG.xx.xR.xx.A.1.80	1640	1740	295	1024	419	25	210	626	132	430	530	488	1210	511	1610	1002	608	328	370	494	540	586	M14	552	390	390	686	150	535	875	313	856	328	270
H440X	MG.xx.xR.xx.A.1.100	1640	1740	295	1024	419	25	210	639	145	430	530	488	1210	511	1690	1082	608	328	370	494	540	586	M14	552	390	390	791	150	642	942	353	856	328	270
H500X	MG.xx.xR.xx.A.1.50	1640	1740	295	1024	419	25	217	595	100	430	530	488	1210	511	1554	946	608	360	410	494	540	586	M14	552	390	390	764	150	613	845	190	856	356	270
H500X	MG.xx.xR.xx.A.1.65	1640	1740	295	1024	419	25	217	611	117	430	530	488	1210	511	1577	969	608	360	410	494	540	586	M14	552	390	390	634	150	484	845	294	856	356	270
H500X	MG.xx.xR.xx.A.1.80	1640	1740	295	1024	419	25	217	626	132	430	530	488	1210	511	1610	1002	608	360	410	494	540	586	M14	552	390	390	686	150	535	875	313	856	356	270
H500X	MG.xx.xR.xx.A.1.100	1640	1740	295	1024	419	25	217	639	145	430	530	488	1210	511	1690	1082	608	360	410	494	540	586	M14	552	390	390	791	150	642	942	353	856	356	270

Approximate values



ELECTRONIC OPERATION

Model	Gas train	Operation	H365X		H440X		H500X	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.50.EC	2"	PR (*)	03507135C		03507215C		03507295C	
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03507155C		03507235C		03507315C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03507175C		03507255C		03507335C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03507195C		03507275C		03507355C	

SR = Standard combustion head (BS)

LR = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	H365X		H440X		H500X	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.50.ES	2"	MD (**)	03507135S		03507215S		03507295S	
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03507155S		03507235S		03507315S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03507175S		03507255S		03507335S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03507195S		03507275S		03507355S	

SR = Standard combustion head (BS)

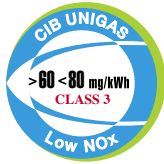
LR = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

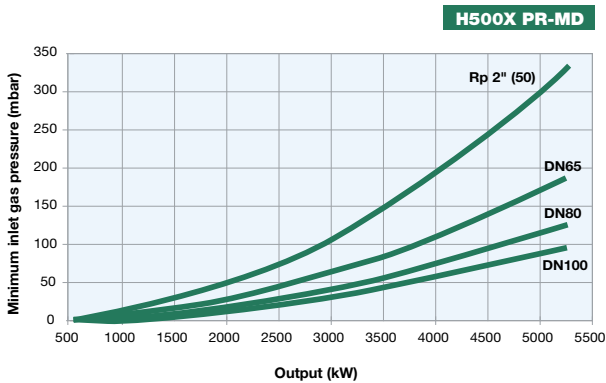
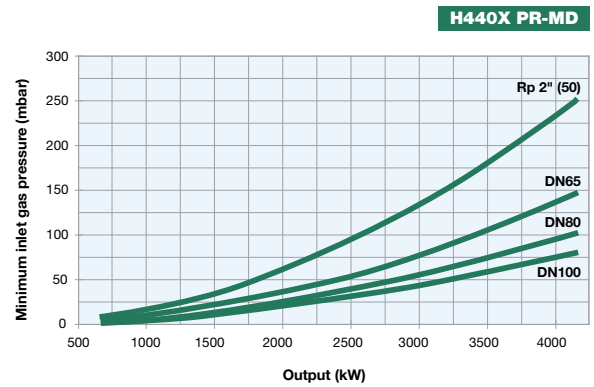
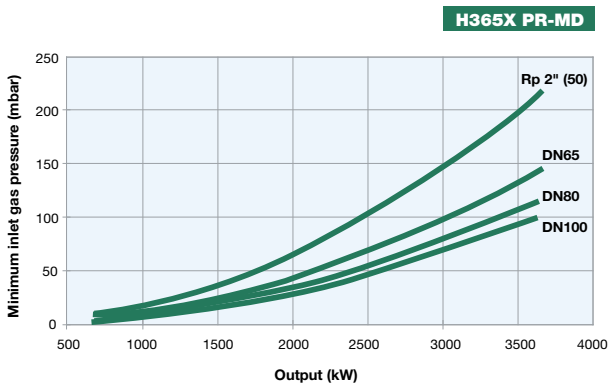
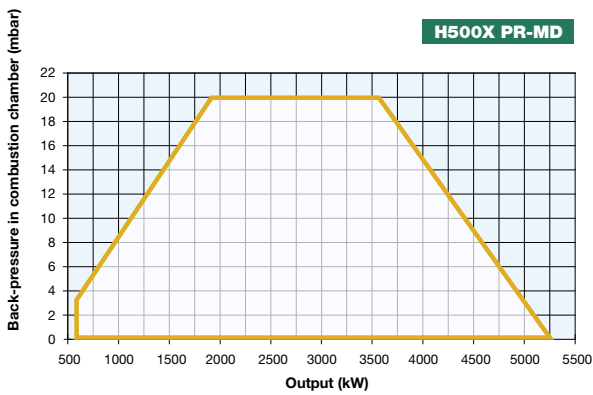
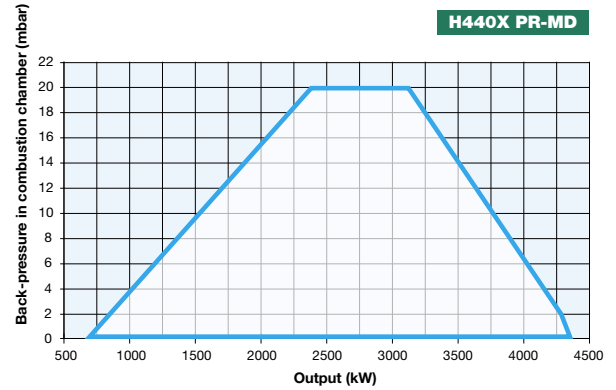
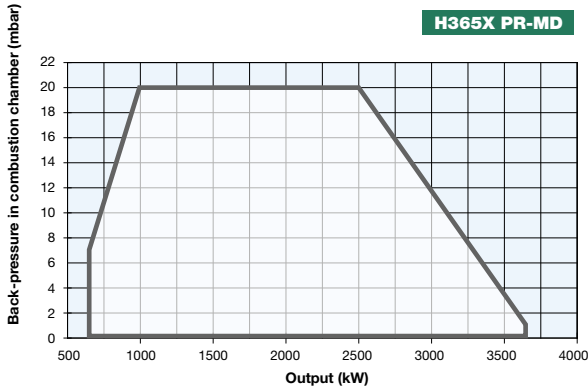
In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



H365X H440X H500X **cinquecento** SERIES



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

CINQUECENTO SERIES K590X K660X K750X



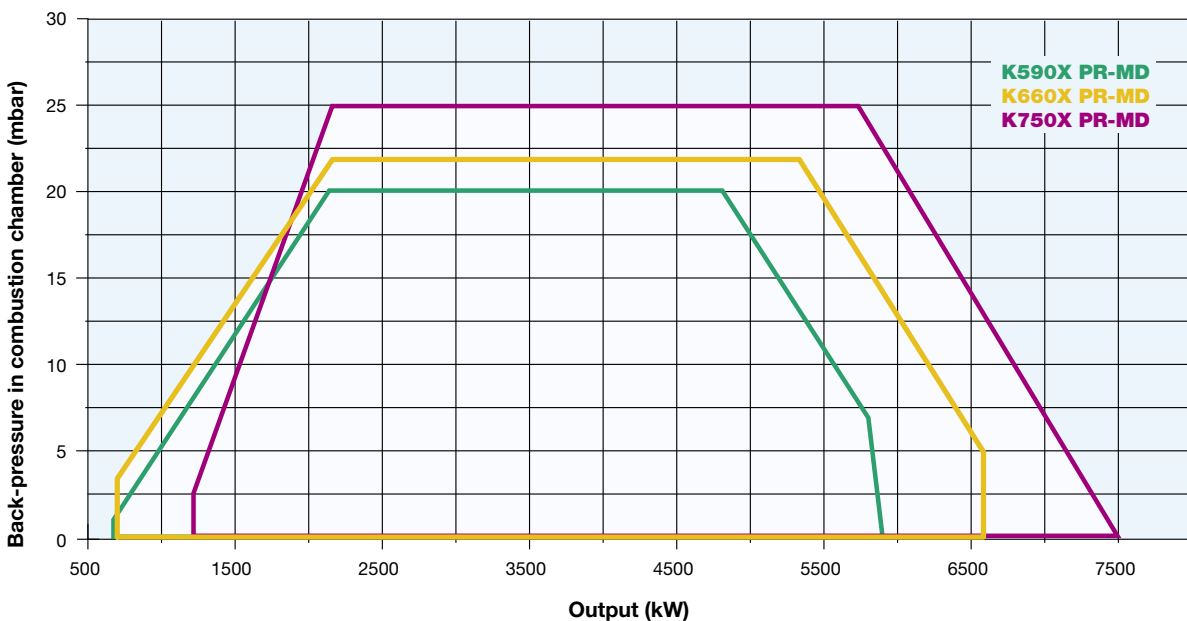
GAS/LIGHT OIL

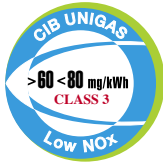
NEW

The new K type CINQUECENTO series **Low NO_x** burners (gas side < 80 mg/kWh Class 3 EN676), made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions. In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

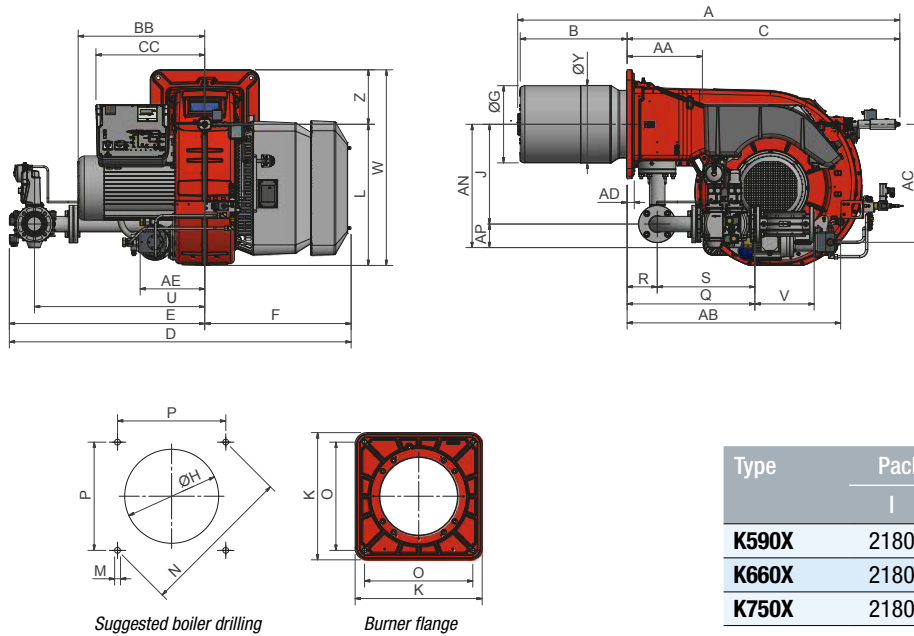




TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
K590X	MG.xx.xR.xx.A.1.xxx	670	5.900	230 V 1N AC 50 Hz	400V 3 AC 50 Hz	15,0	1,5	DN65 - DN80 - DN100 - DN125	< 85
K660X	MG.xx.xR.xx.A.1.xxx	680	6.600	230 V 1N AC 50 Hz	400V 3 AC 50 Hz	15,0	2,2	DN65 - DN80 - DN100 - DN125	< 85
K750X	MG.xx.xR.xx.A.1.xxx	860	7.500	230 V 1N AC 50 Hz	400V 3 AC 50 Hz	15,0	2,2	DN65 - DN80 - DN100 - DN125	< 85

For the configuration of the gas train, see page 112-113.



Type	Packaging dimensions (mm)			
	l	p	h	kg
K590X	2180	1450	1220	495
K660X	2180	1450	1220	530
K750X	2180	1450	1220	530

Approximate values

Type	Model	Overall dimensions (mm)																																	
		AS	AL	AA	AB	AC	AD	AE	AN	AP	BS	BL	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
K590X	MG.xx.xR.xx.A.1.65	1785	1885	366	1082	670	25	314	611	117	430	530	626	1355	524	1695	969	726	360	400	494	540	690	M16	651	460	460	636	150	487	845	292	960	356	270
K590X	MG.xx.xR.xx.A.1.80	1785	1885	366	1082	670	25	314	626	132	430	530	626	1355	524	1728	1002	726	360	400	494	540	690	M16	651	460	460	687	150	538	875	313	960	356	270
K590X	MG.xx.xR.xx.A.1.100	1785	1885	366	1082	670	25	314	639	145	430	530	626	1355	524	1808	1082	726	360	400	494	540	690	M16	651	460	460	791	150	642	942	353	960	356	270
K590X	MG.xx.xR.xx.A.1.125	1785	1885	366	1082	670	25	314	738	175	430	530	626	1355	524	2073	1347	726	360	400	562	540	690	M16	651	460	460	904	150	754	1192	479	960	356	270
K660X	MG.xx.xR.xx.A.1.65	1785	1885	366	1082	670	25	314	611	117	430	530	626	1355	524	1695	969	726	383	423	494	540	690	M16	651	460	460	636	150	487	845	292	960	356	270
K660X	MG.xx.xR.xx.A.1.80	1785	1885	366	1082	670	25	314	626	132	430	530	626	1355	524	1728	1002	726	383	423	494	540	690	M16	651	460	460	687	150	538	875	313	960	356	270
K660X	MG.xx.xR.xx.A.1.100	1785	1885	366	1082	670	25	314	639	145	430	530	626	1355	524	1808	1082	726	383	423	494	540	690	M16	651	460	460	791	150	642	942	353	960	356	270
K660X	MG.xx.xR.xx.A.1.125	1785	1885	366	1082	670	25	314	738	175	430	530	626	1355	524	2073	1347	726	383	423	562	540	690	M16	651	460	460	904	150	754	1192	479	960	356	270
K750X	MG.xx.xR.xx.A.1.65	1785	1885	366	1073	670	25	300	611	117	430	530	626	1355	524	1695	969	726	419	470	494	540	690	M16	651	460	460	636	150	487	845	292	960	336	270
K750X	MG.xx.xR.xx.A.1.80	1785	1885	366	1073	670	25	300	626	132	430	530	626	1355	524	1728	1002	726	419	470	494	540	690	M16	651	460	460	687	150	538	875	313	960	336	270
K750X	MG.xx.xR.xx.A.1.100	1785	1885	366	1073	670	25	300	639	145	430	530	626	1355	524	1808	1082	726	419	470	494	540	690	M16	651	460	460	791	150	642	942	353	960	336	270
K750X	MG.xx.xR.xx.A.1.125	1785	1885	366	1073	670	25	300	738	175	430	530	626	1355	524	2073	1347	726	419	470	562	540	690	M16	651	460	460	904	150	754	1192	479	960	336	270

Approximate values

ELECTRONIC OPERATION

Model	Gas train	Operation	K590X		K660X		K750X	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.65.EC	DN65	PR (*)	03407125C		03407285A		03407205C	
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	03407145C		03407305A		03407225C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	03407165C		03407325A		03407245C	
MG.PR.SR.xx.A.1.125.EC	DN125	PR (*)	03407185C		03407345A		03407265C	

SR = Standard combustion head (BS)

LR = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	K590X		K660X		K750X	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.65.ES	DN65	MD (**)	03407125S		03407285S		03407205S	
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	03407145S		03407305S		03407225S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	03407165S		03407325S		03407245S	
MG.MD.SR.xx.A.1.125.ES	DN125	MD (**)	03407185S		03407345S		03407265S	

SR = Standard combustion head (BS)

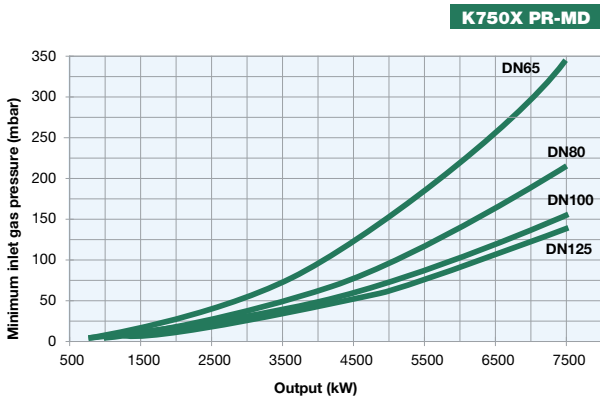
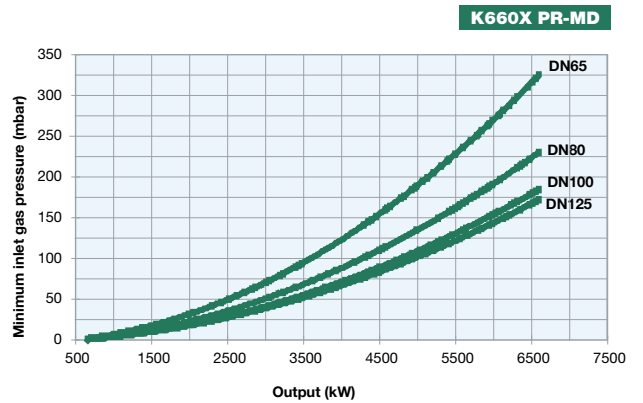
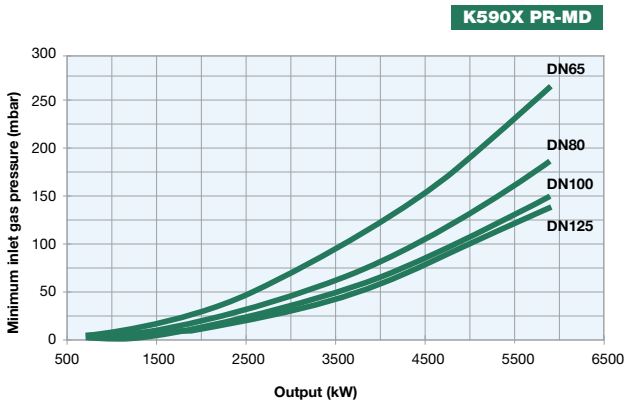
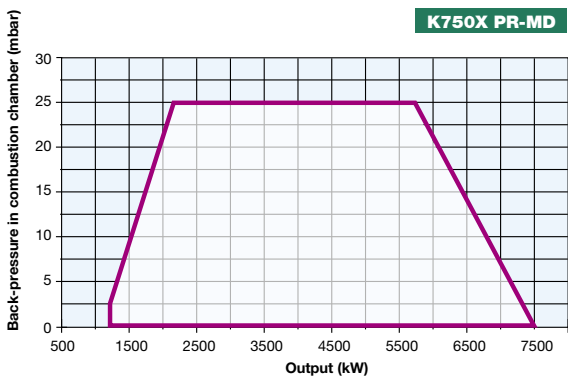
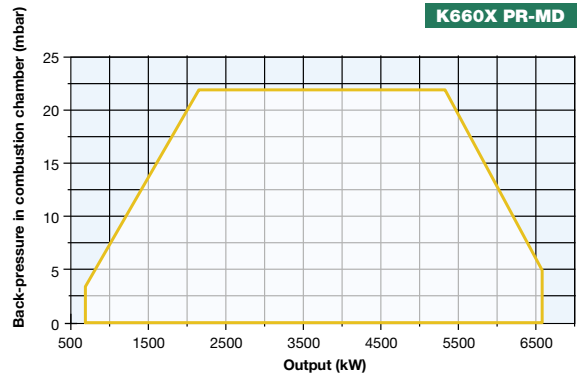
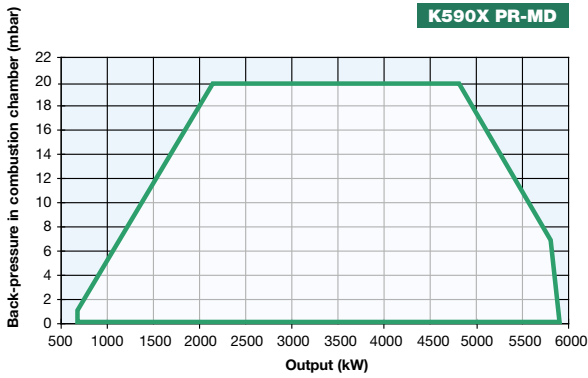
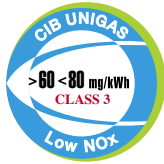
LR = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

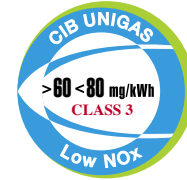
In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

mille SERIES N880X N925X N1060X



GAS/LIGHT OIL

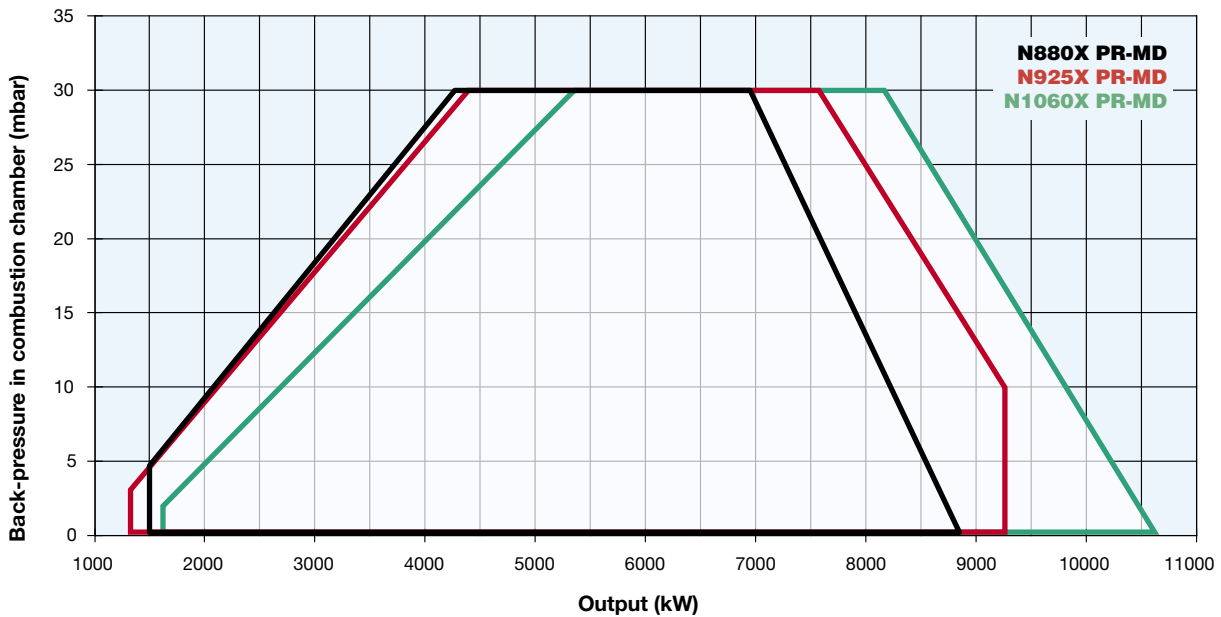
NEW

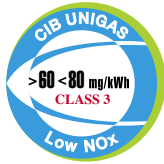
The new N type MILLE series **Low NO_x** burners (gas side < 80 mg/kWh Class 3 EN676), made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3.

Therefore, the burners are provided with an UV photocell to control the flame during the operation.

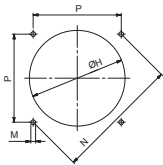
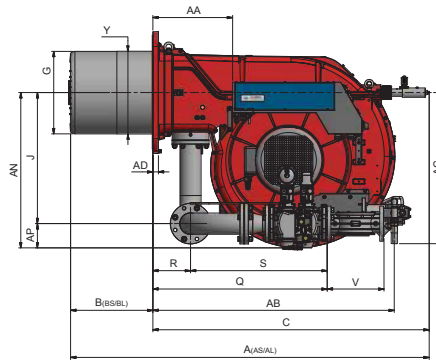
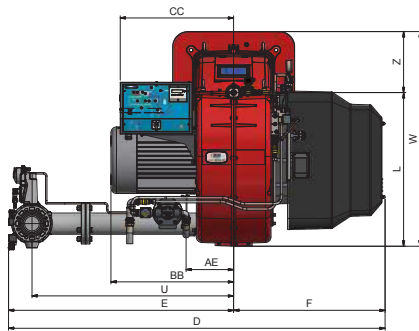




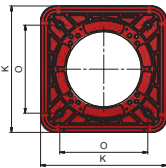
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
N880X	MG.xx.xR.xx.A.1.xxx	1.500	8.800	230V 1NAC 50 Hz	400V 3AC 50 Hz	18,5	3,0	DN80 - DN100 - DN125	< 82,2
N925X	MG.xx.xR.xx.A.1.xxx	1.300	9.250	230V 1NAC 50 Hz	400V 3AC 50 Hz	22,0	3,0	DN80 - DN100 - DN125	< 85,6
N1060X	MG.xx.xR.xx.A.1.xxx	1.550	10.600	230V 1NAC 50 Hz	400V 3AC 50 Hz	30,0	4,0	DN80 - DN100 - DN125	< 85,6

For the configuration of the gas train, see page 112-113.



Suggested boiler drilling



Burner flange

Type	Packaging dimensions (mm)			
	l	p	h	kg
N880X	2300	1720	1410	700
N925X	2300	1720	1410	700
N1060X	2300	1720	1410	700

Approximate values

Type	Model	Overall dimensions (mm)																																	
		AS	AL	AA	AB	AC	AD	AE	AN	AP	BS	BL	BB	C	CC	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U	V	W	Y	Z
N880X	MG.xx.xR.xx.A.1.80	1850	1950	384	1307	720	35	257	841	132	445	545	648	1345	684	1842	1219	623	446	496	709	660	831	M16	651	460	460	944	204	740	1092	310	1161	399	330
N880X	MG.xx.xR.xx.A.1.100	1850	1950	384	1307	720	35	257	854	145	445	545	664	1345	684	1858	1235	623	446	496	709	660	831	M16	651	460	460	848	204	644	1092	350	1161	399	330
N880X	MG.xx.xR.xx.A.1.125	1850	1950	384	1307	720	35	257	884	175	445	545	664	1345	684	1972	1349	623	446	496	709	660	831	M16	651	460	460	958	204	754	1192	478	1161	399	330
N925X	MG.xx.xR.xx.A.1.80	1850	1950	384	1307	720	35	257	841	132	445	545	664	1345	684	1842	1219	623	446	496	709	660	831	M16	651	460	460	944	204	740	1092	310	1161	399	330
N925X	MG.xx.xR.xx.A.1.100	1850	1950	384	1307	720	35	257	854	145	445	545	664	1345	684	1858	1235	623	446	496	709	660	831	M16	651	460	460	848	204	644	1092	350	1161	399	330
N925X	MG.xx.xR.xx.A.1.125	1850	1950	384	1307	720	35	257	884	175	445	545	664	1345	684	1972	1349	623	446	496	709	660	831	M16	651	460	460	958	204	754	1192	478	1161	399	330
N1060X	MG.xx.xR.xx.A.1.80	1850	1950	384	1307	720	35	257	841	132	445	545	664	1345	684	1842	1219	623	489	539	709	660	831	M16	651	460	460	944	204	740	1092	310	1161	399	330
N1060X	MG.xx.xR.xx.A.1.100	1850	1950	384	1307	720	35	257	854	145	445	545	664	1345	684	1858	1235	623	489	539	709	660	831	M16	651	460	460	848	204	644	1092	350	1161	399	330
N1060X	MG.xx.xR.xx.A.1.125	1850	1950	384	1307	720	35	257	884	175	445	545	664	1345	684	1972	1349	623	489	539	709	660	831	M16	651	460	460	958	204	754	1192	478	1161	399	330

Approximate values



ELECTRONIC OPERATION

Model	Gas train	Operation	N880X		N925X		N1060X	
			Code	Price €	Code	Price €	Code	Price €
MG.PR.SR.xx.A.1.80.EC	DN80	PR (*)	02307395C		02307475C		02307535C	
MG.PR.SR.xx.A.1.100.EC	DN100	PR (*)	02307415C		02307495C		02307555C	
MG.PR.SR.xx.A.1.125.EC	DN125	PR (*)	02307435C		02307515C		02307575C	

SR = Standard combustion head (BS)

LR = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	N880X		N925X		N1060X	
			Code	Price €	Code	Price €	Code	Price €
MG.MD.SR.xx.A.1.80.ES	DN80	MD (**)	02307395S		02307475S		02307535S	
MG.MD.SR.xx.A.1.100.ES	DN100	MD (**)	02307415S		02307495S		02307555S	
MG.MD.SR.xx.A.1.125.ES	DN125	MD (**)	02307435S		02307515S		02307575S	

SR = Standard combustion head (BS)

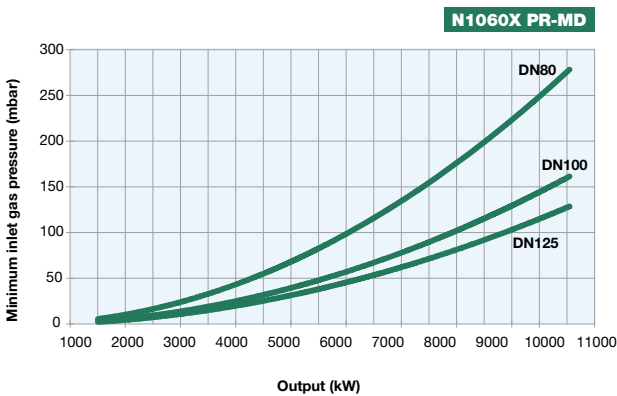
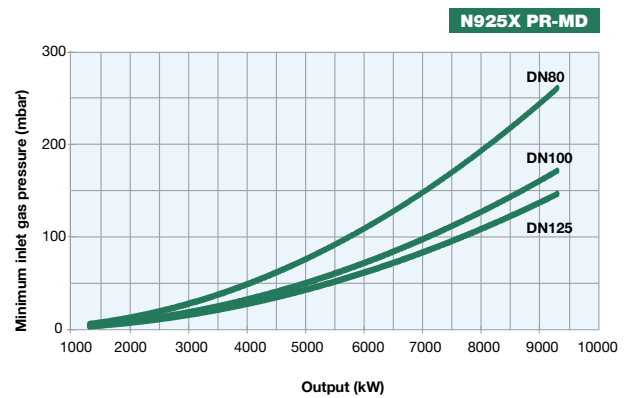
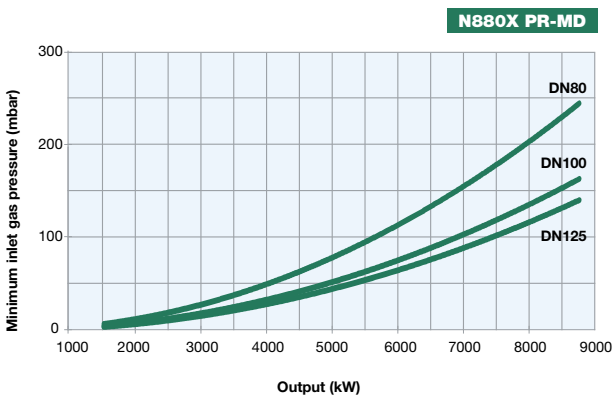
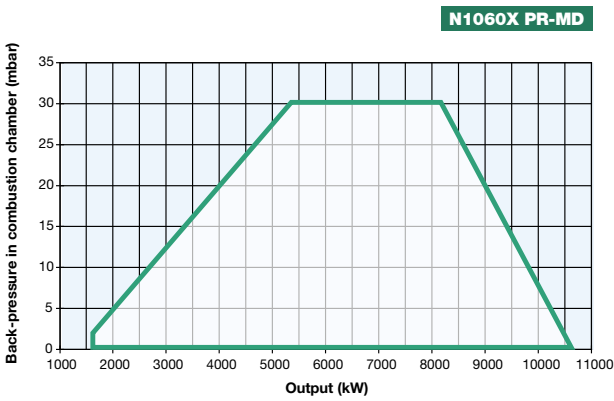
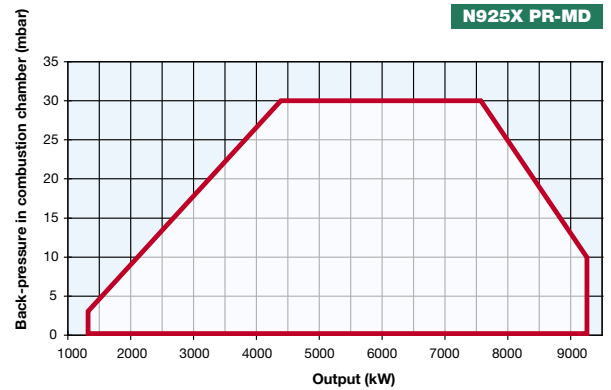
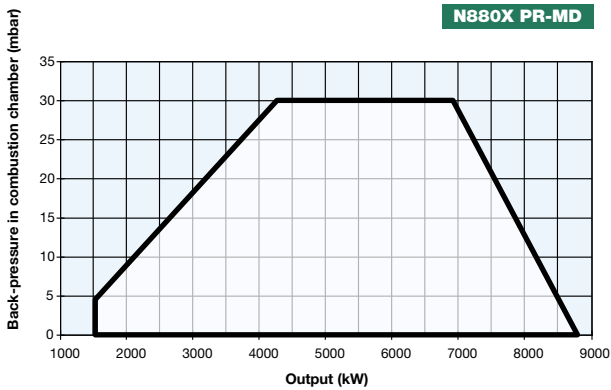
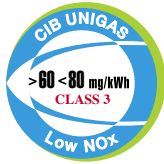
LR = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

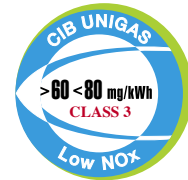
In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.

**HRX2050R HRX2050
HRX2060 HRX2080**



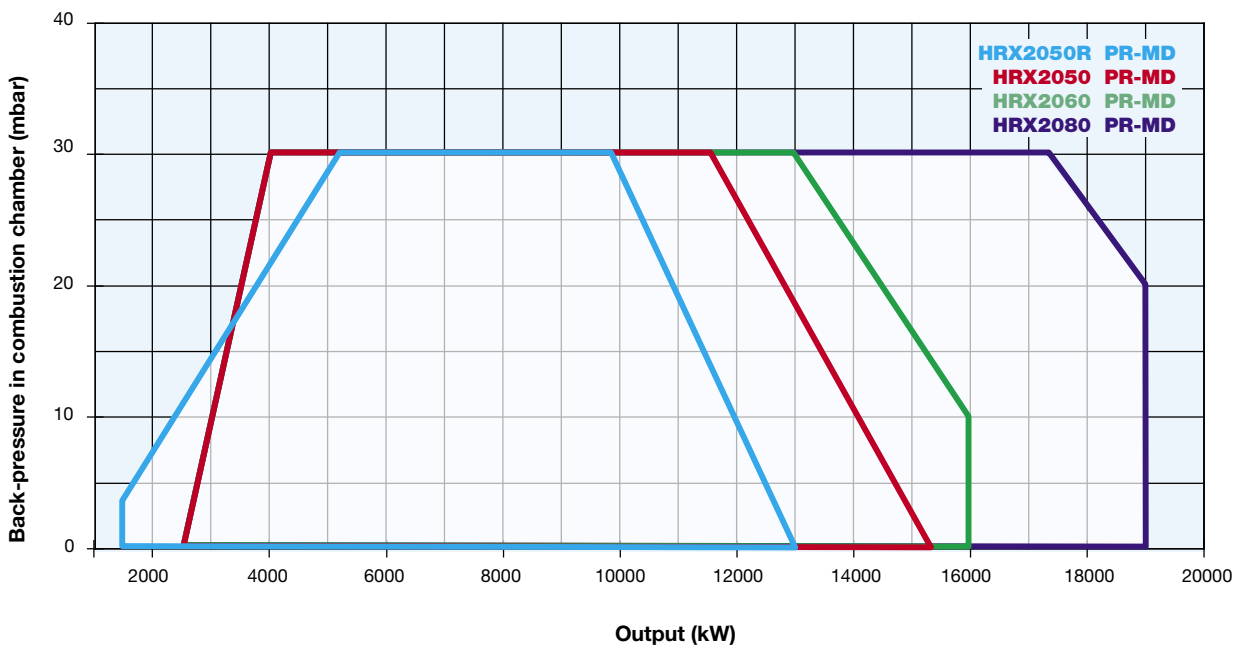
GAS/LIGHT OIL

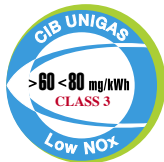


The DUEMILA series **Low NO_x** burners (gas side < 80 mg/kWh Class 3 EN676), made in aluminum housing with a backward curved centrifugal impeller is studied and developed to get high performance and efficiency combined with low emissions.

In this manner this series can burn the two flues separately. This is possible because these burners are equipped with an independent electric motor for the activation of the oil pump. As a consequence, during gas firing the oil pump motor does not operate and remains off.

These burners are equipped with a high performance combustion head, designed to achieve a high irradiating flame when they run on natural gas. Instead, when they run on light oil, they are equipped with a by-pass nozzle which, using a pressure regulator, can reach a modulating ratio of 1:3. Therefore, the burners are provided with an UV photocell to control the flame during the operation.



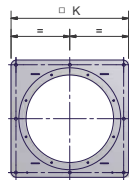
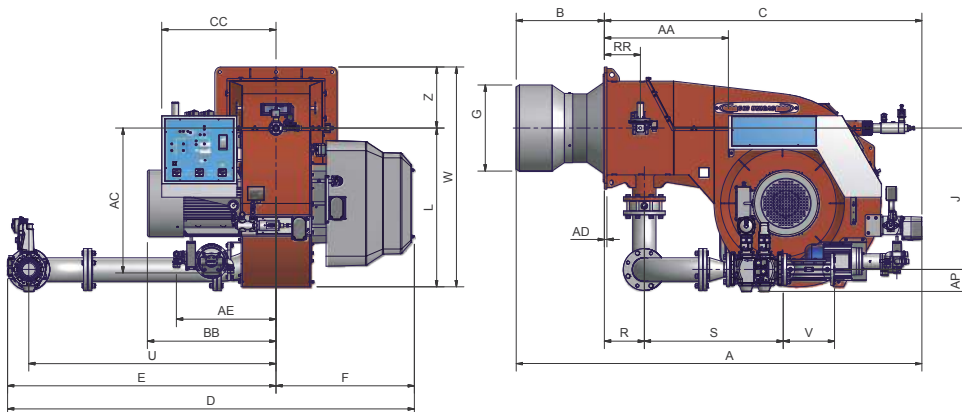


HRX2050R HRX2050 HRX2060 HRX2080 **duemila** SERIES

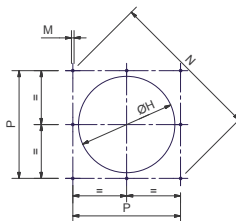
TECHNICAL DETAILS

Type	Model	Output kW		Auxiliary electrical power supply	Motor electrical power supply	Fan motor kW	Pump motor kW	Gas connections	Noise level dBA
		min.	max.						
HRX2050R	MG.xx.x.xx.A.1.xxx.xx	1.780	13.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	37,0	5,5	DN80 - DN100 - DN125	92,5
HRX2050	MG.xx.x.xx.A.1.xxx.xx	2.500	15.200	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	37,0	5,5	DN80 - DN100 - DN125	92,5
HRX2060	MG.xx.S.xx.A.1.xxx.xx	2.500	16.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	45,0	5,5	DN80 - DN100 - DN125	91,7
HRX2080	MG.xx.x.xx.A.1.xxx.xx	2.500	19.000	230 V 1N AC 50 Hz	400 V 3 AC 50 Hz	55,0	5,5	DN100 - DN125	91,7

For the configuration of the gas train, see page 112-113.



Burner flange



Suggested boiler drilling

Type	Packaging dimensions (mm)			
	l	p	h	kg
HRX2050R	2.396	1.886	1.969	1.330
HRX2050	2.396	1.886	1.969	1.330
HRX2060	2.396	1.886	1.969	1.410
HRX2080	2.396	1.886	1.969	1.510

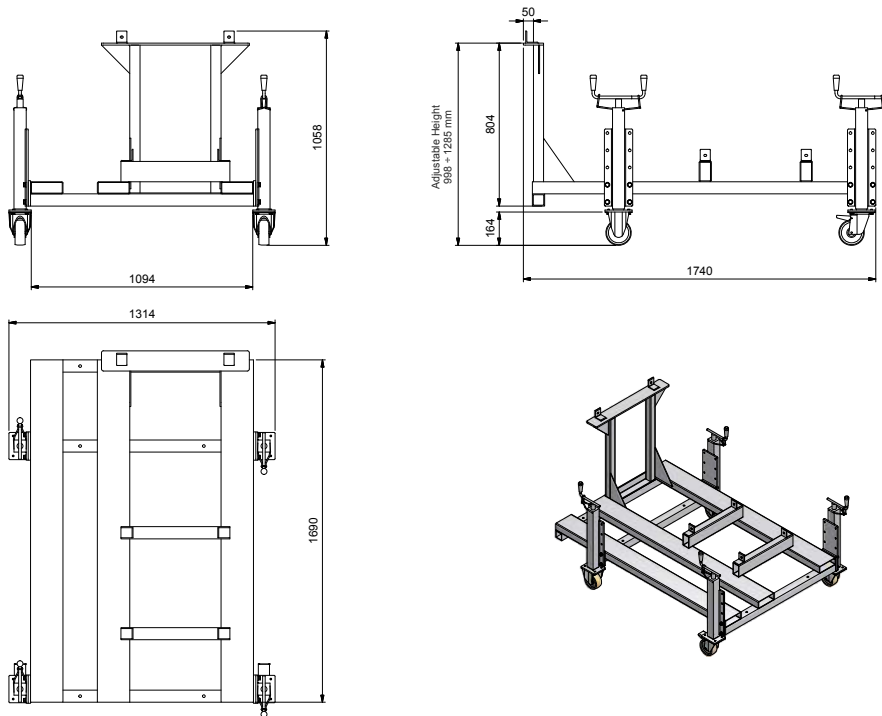
Approximate values

Type	Model	Overall dimensions (mm)																													
		AS	AL	AA	AC	AD	AE	AP	BS* BL*	BB	C	CC	D	E	F	G*	H*	J	K	L	M	N	P	R	RR	S	U	V	W	Z	
HRX2050R	MG.xx.x.xx.A.1.100.xx	2160	2260	741	866	15	595	145	500	600	768	1898	735	2447	1620	827	514	564	845	730	949	M16	948	670	239	215	874	1477	350	1314	365
HRX2050R	MG.xx.x.xx.A.1.125.xx	2160	2260	741	866	15	595	175	500	600	768	1898	735	2465	1638	827	514	564	845	730	949	M16	948	670	239	215	755	1477	480	1314	365
HRX2050	MG.xx.x.xx.A.1.100.xx	2160	2260	741	866	15	595	145	500	600	768	1898	735	2447	1620	827	514	564	845	730	949	M16	948	670	239	215	874	1477	350	1314	365
HRX2050	MG.xx.x.xx.A.1.125.xx	2160	2260	741	866	15	595	175	500	600	768	1898	735	2465	1638	827	514	564	845	730	949	M16	948	670	239	215	755	1477	480	1314	365
HRX2060	MG.xx.S.xx.A.1.100.xx	2160	-	741	866	15	645	145	500	-	807	1890	735	2325	1479	846	550	600	775	850	949	M16	1117	790	239	215	874	1336	350	1374	425
HRX2060	MG.xx.S.xx.A.1.125.xx	2160	-	741	866	15	645	175	500	-	807	1890	735	2343	1497	846	550	600	775	850	949	M16	1117	790	239	215	755	1336	480	1374	425
HRX2080	MG.xx.S.xx.A.1.100.xx	2180	-	741	866	15	645	145	520	-	885	1890	735	2325	1479	846	700	750	775	850	949	M16	1117	790	239	215	874	1336	350	1374	425
HRX2080	MG.xx.S.xx.A.1.125.xx	2180	-	741	866	15	645	175	520	-	885	1890	735	2343	1497	846	700	750	775	850	949	M16	1117	790	239	215	755	1336	480	1374	425

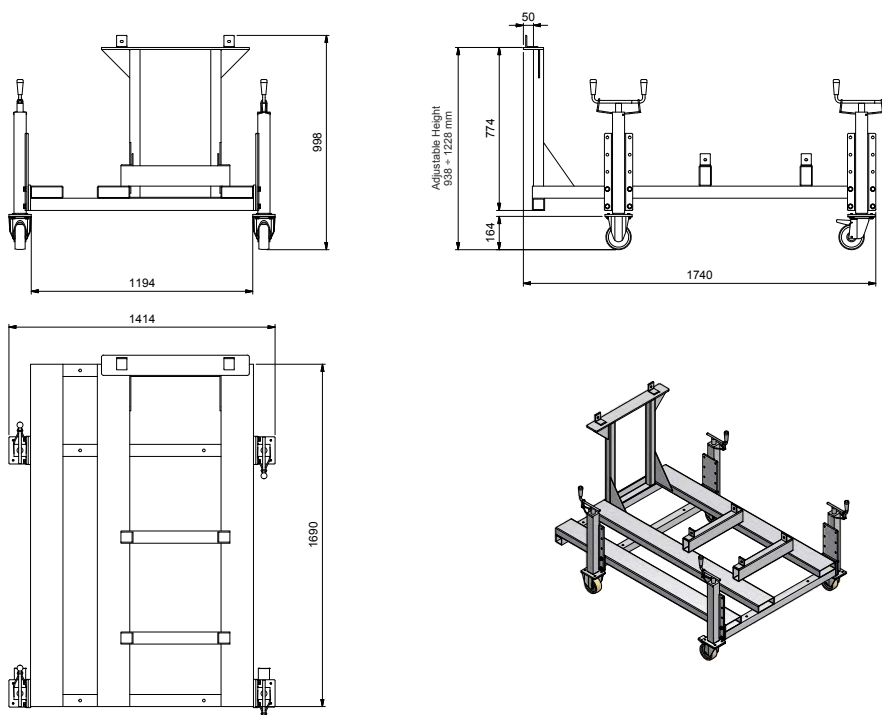
* The BS, BL, G, H dimensions must be confirmed from our technical DPT.
Approximate values

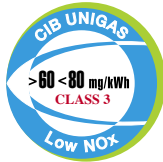
Monoblock burners 2000 series are supplied complete with a steel supporting frame; burner installation and manutention are greatly simplified. The frame is equipped with wheels to easily move the burner, and its height is adjustable to match any type of boiler or furnace.

SUPPORTING FRAME FOR BURNERS 2050 SERIES



SUPPORTING FRAME FOR BURNERS 2060/2080 SERIES



**ELECTRONIC OPERATION**

Model	Gas train	Operation	HRX2050R		HRX2050	
			Code	Price €	Code	Price €
MG.PR.S.xx.A.1.80.EC	DN80	PR (*)	03207195C		03207255C	
MG.PR.S.xx.A.1.100.EC	DN100	PR (*)	03207215C		03207275C	
MG.PR.S.xx.A.1.125.EC	DN125	PR (*)	03207235C		03207295C	

S = Standard combustion head (BS)

L = For long combustion head version (BL) increase the price (see price list)

(*) Progressive PR control, for modulating version MD add € (see price list)

In the full modulating version MD in order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	HRX2050R		HRX2050	
			Code	Price €	Code	Price €
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	03207195S		03207255S	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	03207215S		03207275S	
MG.MD.S.xx.A.1.125.ES	DN125	MD (**)	03207235S		03207295S	

Model	Gas train	Operation	HRX2060		HRX2080	
			Code	Price €	Code	Price €
MG.MD.S.xx.A.1.80.ES	DN80	MD (**)	03207135S		-	
MG.MD.S.xx.A.1.100.ES	DN100	MD (**)	03207145S		03207175S	
MG.MD.S.xx.A.1.125.ES	DN125	MD (**)	03207155S		03207185S	

S = Standard combustion head (BS)

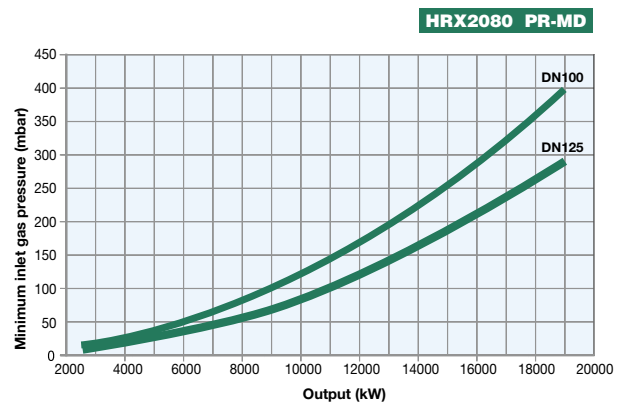
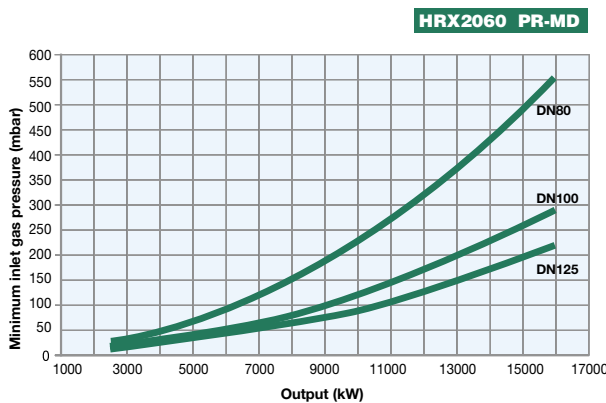
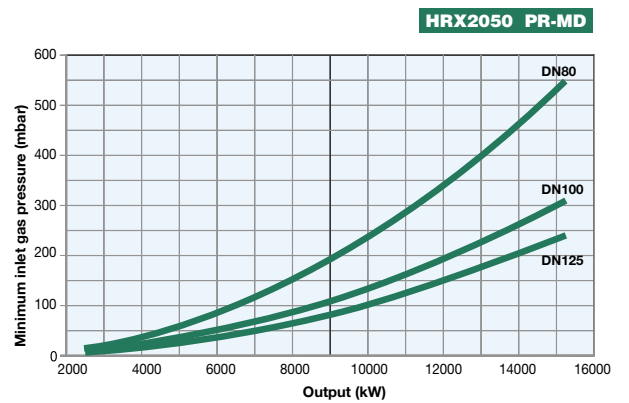
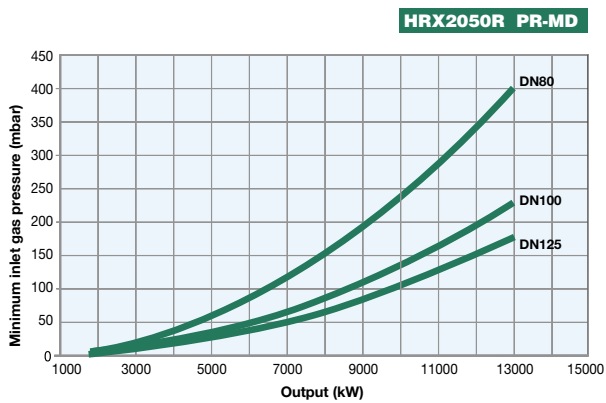
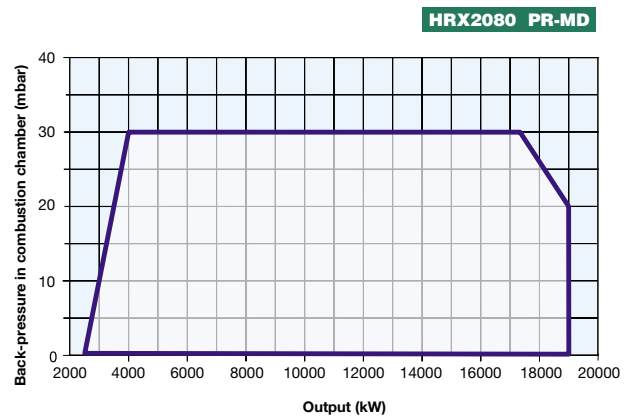
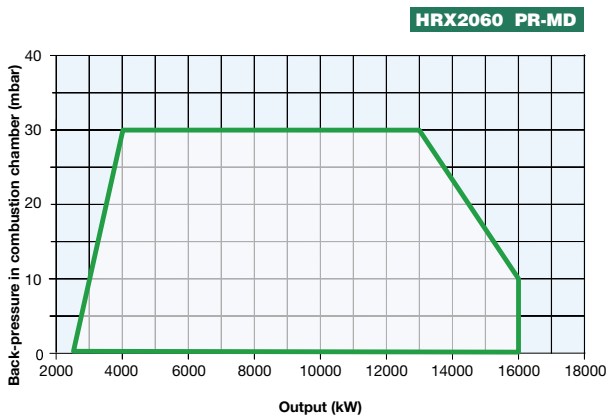
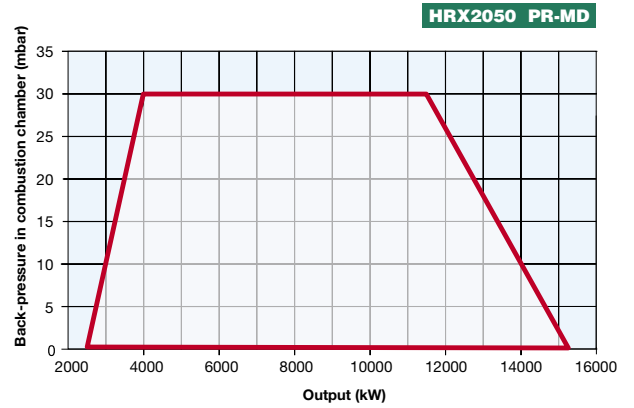
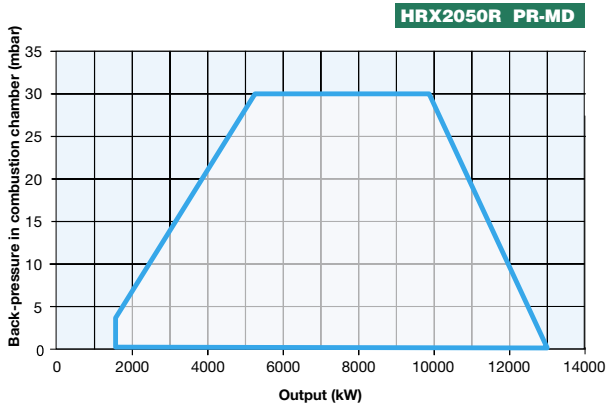
L = For long combustion head version (BL) increase the price (see price list)

(**) The burners are already MD version.

In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 282).

In compliance with:

- GAR Directive 2016/426/EU
- Low Tension Directive 2014/35/UE
- Electromagnetic Compatibility Directive 2014/30/UE
- Machinery Directive 2006/42/CE



Attention: the graph shows the value of the gas output (kW) against the corresponding pressure without the combustion chamber back pressure. To know the minimum gas pressure at gas train, in order to get the gas output, it is necessary to add the boiler back pressure to the value read on the curve.



DUAL FUEL BURNERS GAS/HEAVY OIL

mechanical atomization

novanta series

- KP91** - PR/MD
- KP92** - PR/MD
- KP93** - PR/M

mechanical atomization

cinquecento series

- KR512** - PR/MD
- KR515** - PR/MD
- KR520** - PR/MD
- KR525** - PR/MD

mechanical atomization

mille series

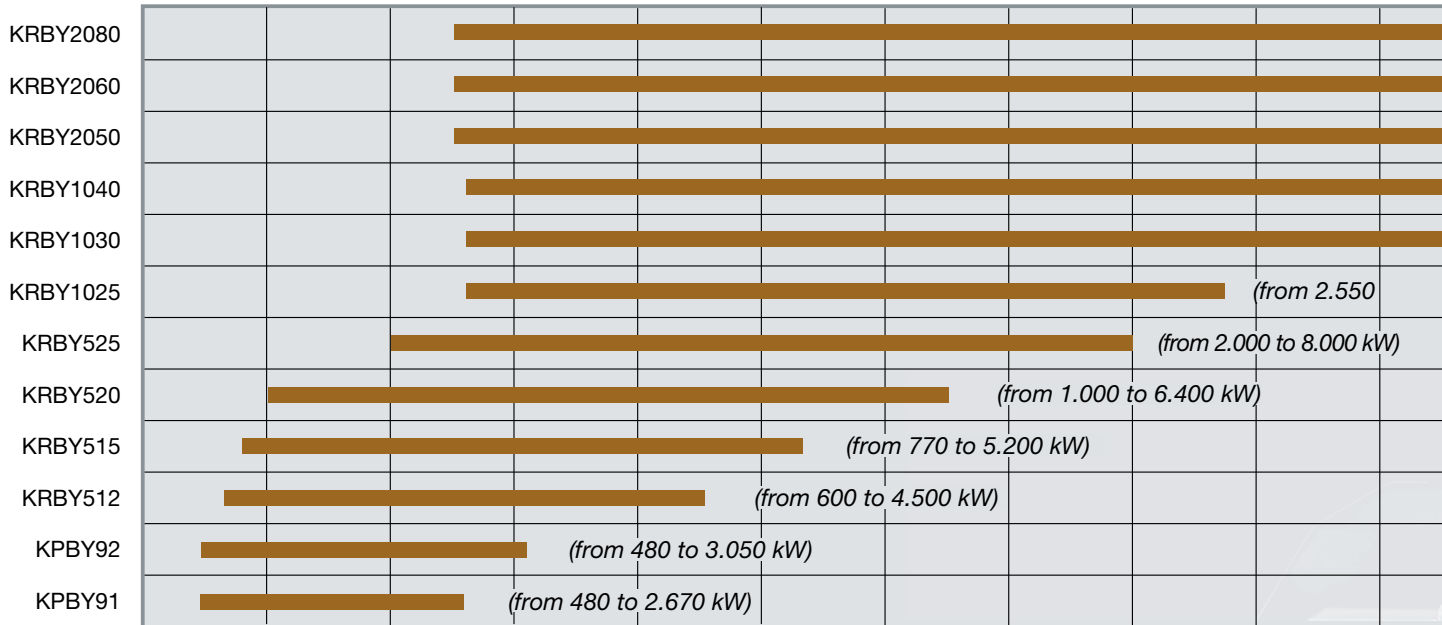
- KR1025** - PR/MD
- KR1030** - PR/MD
- KR1040** - PR/MD

mechanical atomization

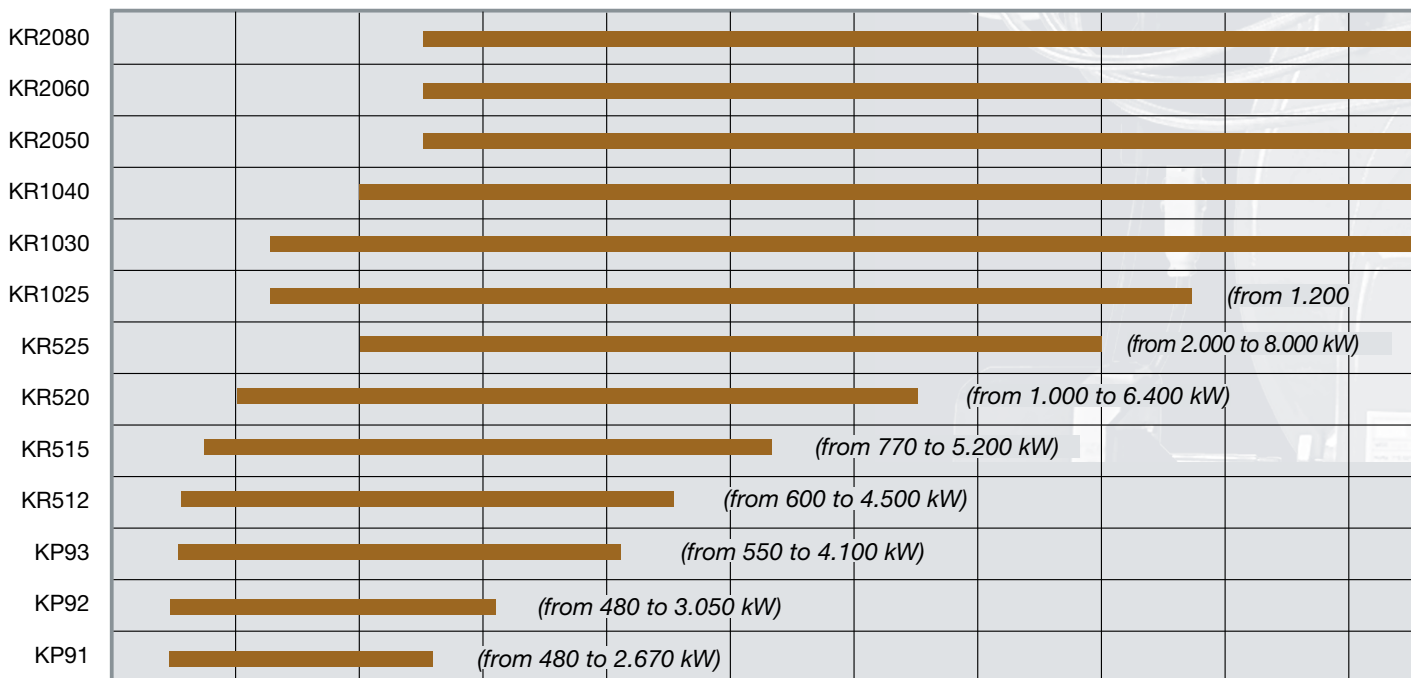
duemila series

- KR2050** - PR/MD
- KR2060** - PR/MD
- KR2080** - PR/MD

Type pneumatic atomization



Type mechanical atomization



pneumatic atomization

novanta series

- KPBY91** - PR/MD
- KPBY92** - PR/MD

pneumatic atomization

cinquecento series

- KRBY512** - PR/MD
- KRBY515** - PR/MD
- KRBY520** - PR/MD
- KRBY525** - PR/MD

pneumatic atomization

mille series

- KRBY1025** - PR/MD
- KRBY1030** - PR/MD
- KRBY1040** - PR/MD

pneumatic atomization

duemila series

- KRBY2050** - PR/MD
- KRBY2060** - PR/MD
- KRBY2080** - PR/MD

