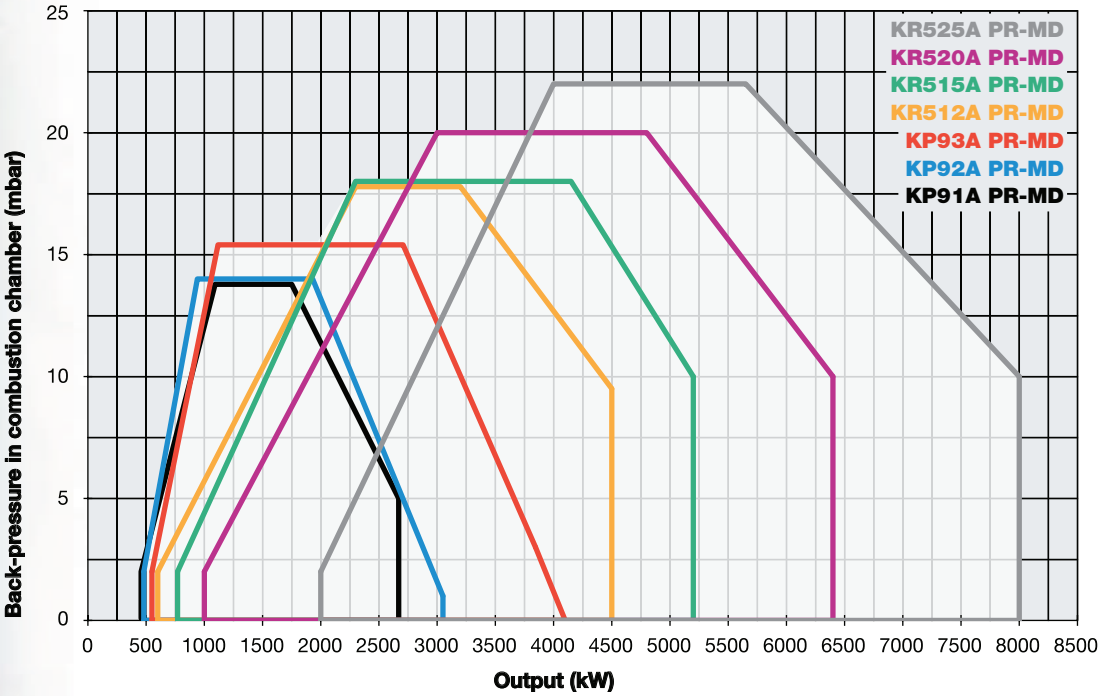
MECHANICAL ATOMIZATION

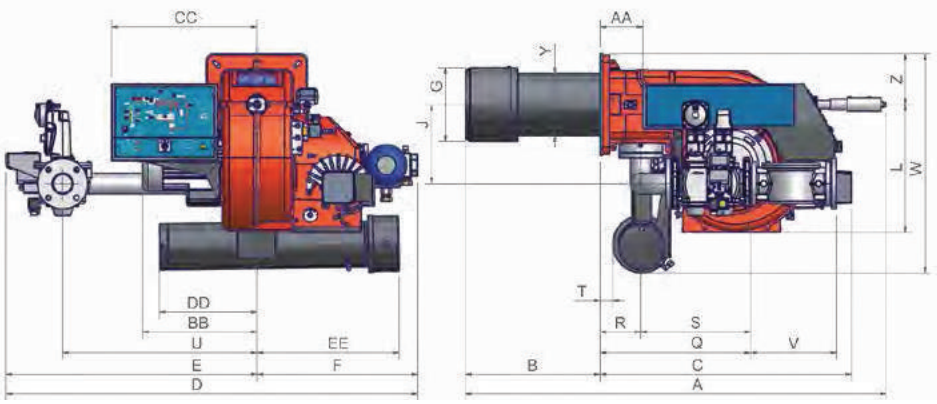
The dual fuel series KP integrates perfectly the mechanical devices to adjust both the natural gas operation and heavy oil one for industrial purposes up to 8000 kW. These burners are equipped with a separate electrical pump motor therefore they can burn gas and oil separately. As a matter of fact the high performance fuel pump is driven by a separate motor which is only running when oil firing is selected. The UV photocell ensures a reliable flame control system.
The burner is provided with a pre-heating tank equipped with low thermical load electrical resistance to ensure oil fluidity. All burners with progressive or modulating operation, have been built to burn fuels whose standard viscosity is 50 cSt at 50°C (7°E at 50°C). Upon request it is available the version for heavy oil up to 400 cSt at 50°C (50°E at 50°C) complete with the heating cable for the oil lance.

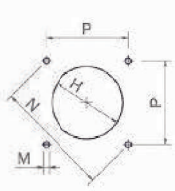


TECHNICAL DETAILS

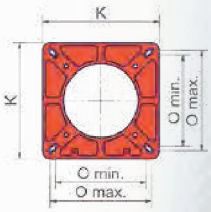
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Resistor	Gas connections
		min.	max.	supply	kW	kW	kW	
KP91A	MN.xx.S.IT.A.1.xx	480	2.670	230/400 V 3N ac	4,0	1,1	18	2" - DN 65 - 80 - 100
KP92A	MN.xx.S.IT.A.1.xx	480	3.050	230/400 V 3N ac	5,5	1,1	18	2" - DN 65 - 80 - 100
KP93A	MN.xx.S.IT.A.1.xx	550	4.100	230/400 V 3N ac	7,5	1,5	24	2" - DN 65 - 80 - 100

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





Suggested boiler drilling



Burner flange

Type	Packaging dimensions* (mm)			
	l	*p*	*h*	kg
KP91A/KP92A/KP93A	1730	1280	1020	370

(*) Approximate values

Type Model	Overall dimensions* (mm)																																		
	A	AA	AC	AD	AE	AN	AP	B	BB	C	CC	D	DD	E	EE	F	G	H	I	J	K	L	M	N	O		P	Q	R	S	T	U	V	W	Y	Z
																									min	max										
KP91A MN.xx.S.xx.A.1.50	1525	152	343	35	473	429	100	495	441	1030	533	1345	464	726	441	619	304	344	228	329	360	466	M12	424	280	310	300	522	148	374	44	624	216	783	228	185
KP91A MN.xx.S.xx.A.1.65	1525	152	343	35	473	405	117	495	441	1030	533	1494	464	875	441	619	304	344	228	288	360	466	M12	424	280	310	300	632	148	484	44	750	292	783	228	185
KP91A MN.xx.S.xx.A.1.80	1525	152	343	35	473	439	132	495	441	1030	533	1496	464	877	441	619	304	344	228	307	360	466	M12	424	280	310	300	683	148	535	44	750	313	783	228	185
KP91A MN.xx.S.xx.A.1.100	1525	152	343	35	473	592	145	495	441	1030	533	1586	464	967	441	619	304	344	228	447	360	466	M12	424	280	310	300	790	148	642	44	824	353	783	228	185
KP92A MN.xx.S.xx.A.1.50	1525	152	343	35	473	429	100	495	441	1030	533	1345	464	726	441	619	304	344	228	329	360	466	M12	424	280	310	300	522	148	374	44	624	216	783	228	185
KP92A MN.xx.S.xx.A.1.65	1525	152	343	35	473	405	117	495	441	1030	533	1494	464	875	441	619	304	344	228	288	360	466	M12	424	280	310	300	632	148	484	44	750	292	783	228	185
KP92A MN.xx.S.xx.A.1.80	1525	152	343	35	473	439	132	495	441	1030	533	1496	464	877	441	619	304	344	228	307	360	466	M12	424	280	310	300	683	148	535	44	750	313	783	228	185
KP92A MN.xx.S.xx.A.1.100	1525	152	343	35	473	592	145	495	441	1030	533	1586	464	967	441	619	304	344	228	447	360	466	M12	424	280	310	300	790	148	642	44	824	353	783	228	185
KP93A MN.xx.S.xx.A.1.50	1525	152	343	35	473	429	100	495	460	1030	533	1345	464	726	441	619	304	344	228	329	360	466	M12	424	280	310	300	522	148	374	44	624	216	783	228	185
KP93A MN.xx.S.xx.A.1.65	1525	152	343	35	473	405	117	495	460	1030	533	1494	464	875	441	619	304	344	228	288	360	466	M12	424	280	310	300	632	148	484	44	750	292	783	228	185
KP93A MN.xx.S.xx.A.1.80	1525	152	343	35	473	439	132	495	460	1030	533	1496	464	877	441	619	304	344	228	307	360	466	M12	424	280	310	300	683	148	535	44	750	313	783	228	185
KP93A MN.xx.S.xx.A.1.100	1525	152	343	35	473	592	145	495	460	1030	533	1586	464	967	441	619	304	344	228	447	360	466	M12	424	280	310	300	790	148	642	44	824	353	783	228	185

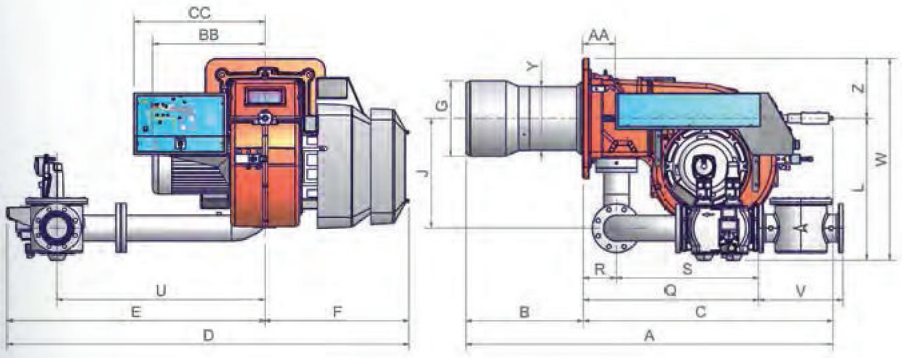
(*) Approximate values
*DN = gas valves diameter
NOTE: dimensions with Siemens VGD valves

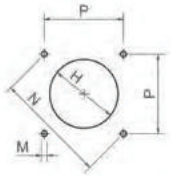
MECHANICAL ATOMIZATION

TECHNICAL DETAILS

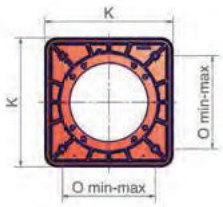
Type	Model	Power kW		Electric power	Fan motor	Pump motor	Resistor	Gas connections
		min.	max.	supply	kW	kW	kW	
KR512A	MN.xx.S.IT.A.1.xxx	600	4.500	230/400 V 3N ac	9,2	1,5	24	2" - DN 65 - 80 - 100
KR515A	MN.xx.S.IT.A.1.xxx	770	5.200	230/400 V 3N ac	11,0	1,5	12 + 18	2" - DN 65 - 80 - 100
KR520A	MN.xx.S.IT.A.1.xxx	1.000	6.400	230/400 V 3N ac	15,0	2,2	18 + 24	2" - DN 65 - 80 - 100
KR525A	MN.xx.S.IT.A.1.xxx	2.000	8.000	400 V 3N ac	18,5	2,2	24 + 24	DN 65 - 80 - 100

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





Suggested boiler drilling



Burner flange

Type	Packaging dimensions* (mm)			
	l	*p*	*h*	kg
KR512A/KR515A/KR520A	1760	1470	1300	470
KR525A	1800	1500	1300	480

(*) Approximate values

Type	Model	Overall dimensions* (mm)																														
		A	AA	AD	AM	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
KR512A	MN.xx.S.xx.A.1.50	1741	144	35	220	594	100	530	508	1211	598	1713	1071	642	340	380	494	540	492	M14	552	390	390	755	150	605	845	216	759	328	270	
KR512A	MN.xx.S.xx.A.1.65	1741	144	35	220	612	118	530	508	1211	598	1693	1051	642	340	380	494	540	492	M14	552	390	390	634	150	485	845	292	759	328	270	
KR512A	MN.xx.S.xx.A.1.80	1741	144	35	220	626	132	530	508	1211	598	1726	1084	642	340	380	494	540	492	M14	552	390	390	685	150	535	875	322	759	328	270	
KR512A	MN.xx.S.xx.A.1.100	1741	144	35	220	639	145	530	508	1211	598	1809	1167	642	340	380	494	540	492	M14	552	390	390	792	150	642	942	382	759	328	270	
KR515A	MN.xx.S.xx.A.1.50	1741	144	35	220	594	100	530	508	1211	598	1713	1071	642	380	420	494	540	492	M14	552	390	390	755	150	605	845	216	759	328	270	
KR515A	MN.xx.S.xx.A.1.65	1741	144	35	220	612	118	530	508	1211	598	1693	1051	642	380	420	494	540	492	M14	552	390	390	634	150	485	845	292	759	328	270	
KR515A	MN.xx.S.xx.A.1.80	1741	144	35	220	626	132	530	508	1211	598	1726	1084	642	380	420	494	540	492	M14	552	390	390	685	150	535	875	322	759	328	270	
KR515A	MN.xx.S.xx.A.1.100	1741	144	35	220	639	145	530	508	1211	598	1809	1167	642	380	420	494	540	492	M14	552	390	390	792	150	642	942	382	759	328	270	
KR520A	MN.xx.S.xx.A.1.50	1741	144	35	220	594	100	530	508	1211	598	1713	1071	642	400	440	494	540	492	M14	552	390	390	755	150	605	845	216	759	340	270	
KR520A	MN.xx.S.xx.A.1.65	1741	144	35	220	612	118	530	508	1211	598	1693	1051	642	400	440	494	540	492	M14	552	390	390	634	150	485	845	292	759	340	270	
KR520A	MN.xx.S.xx.A.1.80	1741	144	35	220	626	132	530	508	1211	598	1726	1084	642	400	440	494	540	492	M14	552	390	390	685	150	535	875	322	759	340	270	
KR520A	MN.xx.S.xx.A.1.100	1741	144	35	220	639	145	530	508	1211	598	1809	1167	642	400	440	494	540	492	M14	552	390	390	792	150	642	942	382	759	340	270	
KR525A	MN.xx.S.xx.A.1.50	1741	144	35	220	594	100	530	650	1211	598	1713	1071	642	434	484	494	540	492	M14	552	390	390	755	150	605	845	216	759	340	270	
KR525A	MN.xx.S.xx.A.1.65	1741	144	35	220	612	118	530	650	1211	598	1693	1051	642	434	484	494	540	492	M14	552	390	390	634	150	485	845	292	759	340	270	
KR525A	MN.xx.S.xx.A.1.80	1741	144	35	220	626	132	530	650	1211	598	1726	1084	642	434	484	494	540	492	M14	552	390	390	685	150	535	875	322	759	340	270	
KR525A	MN.xx.S.xx.A.1.100	1741	144	35	220	639	145	530	650	1211	598	1809	1167	642	434	484	494	540	492	M14	552	390	390	792	150	642	942	382	759	340	270	

(*) Approximate values
*DN = gas valves diameter
NOTE: dimensions with Siemens VGD valves

MECHANICAL OPERATION

Model	Gas train	Operation	KP91A Code	KP91A Price €	KP92A Code	KP92A Price €	KP93A Code	KP93A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)								
MN.PR.S.IT.A.1.50	2"	PR	012081753		012082153		012081353	
MN.PR.S.IT.A.1.65	DN65	PR	012081853		012082253		012081453	
MN.PR.S.IT.A.1.80	DN80	PR	012081953		012082353		012081553	
MN.PR.S.IT.A.1.100	DN100	PR	012082053		012082453		012081653	
MN.MD.S.IT.A.1.50	2"	MD(*)	012081754		012082154		012081354	
MN.MD.S.IT.A.1.65	DN65	MD(*)	012081854		012082254		012081454	
MN.MD.S.IT.A.1.80	DN80	MD(*)	012081954		012082354		012081554	
MN.MD.S.IT.A.1.100	DN100	MD(*)	012082054		012082454		012081654	
HEAVY OIL 400 cSt at 50° (50°E at 50°C)								
MD.PR.S.IT.A.1.50	2"	PR	012191753		012192153		012191353	
MD.PR.S.IT.A.1.65	DN65	PR	012191853		012192253		012191453	
MD.PR.S.IT.A.1.80	DN80	PR	012191953		012192353		012191553	
MD.PR.S.IT.A.1.100	DN100	PR	012192053		012192453		012191653	
MD.MD.S.IT.A.1.50	2"	PR	012191754		012192154		012191354	
MD.MD.S.IT.A.1.65	DN65	PR	012191854		012192254		012191454	
MD.MD.S.IT.A.1.80	DN80	PR	012191954		012192354		012191554	
MD.MD.S.IT.A.1.100	DN100	PR	012192054		012192454		012191654	

Model	Gas train	Operation	KR512A Code	KR512A Price €	KR515A Code	KR515A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.PR.S.IT.A.1.50	2"	PR	029080153		029080553	
MN.PR.S.IT.A.1.65	DN65	PR	029080253		029080653	
MN.PR.S.IT.A.1.80	DN80	PR	029080353		029080753	
MN.PR.S.IT.A.1.100	DN100	PR	029080453		029080853	
MN.MD.S.IT.A.1.50	2"	MD(*)	029080154		029080554	
MN.MD.S.IT.A.1.65	DN65	MD(*)	029080254		029080654	
MN.MD.S.IT.A.1.80	DN80	MD(*)	029080354		029080754	
MN.MD.S.IT.A.1.100	DN100	MD(*)	029080454		029080854	

Model	Gas train	Operation	KR520A Code	KR520A Price €	KR525A Code	KR525A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.PR.S.IT.A.1.50	2"	PR	029080953		-	
MN.PR.S.IT.A.1.65	DN65	PR	029081053		029081453	
MN.PR.S.IT.A.1.80	DN80	PR	029081153		029081553	
MN.PR.S.IT.A.1.100	DN100	PR	029081253		029081653	
MN.MD.S.IT.A.1.50	2"	MD(*)	029080954		-	
MN.MD.S.IT.A.1.65	DN65	MD(*)	029081054		029081454	
MN.MD.S.IT.A.1.80	DN80	MD(*)	029081154		029081554	
MN.MD.S.IT.A.1.100	DN100	MD(*)	029081254		029081654	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 238)
In compliance with DIRECTIVE 2009/142/CE
In compliance with DIRECTIVE E.M.C. 2004/108/CE and DIRECTIVE B.T. 2006/95/CE

MECHANICAL ATOMIZATION

MECHANICAL OPERATION

Model	Gas train	Operation	KR512A Code	KR512A Price €	KR515A Code	KR515A Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.PR.S.IT.A.1.50	2"	PR	029190153		029190553	
MD.PR.S.IT.A.1.65	DN65	PR	029190253		029190653	
MD.PR.S.IT.A.1.80	DN80	PR	029190353		029190753	
MD.PR.S.IT.A.1.100	DN100	PR	029190453		029190853	
MD.MD.S.IT.A.1.50	2"	MD(*)	029190154		029190554	
MD.MD.S.IT.A.1.65	DN65	MD(*)	029190254		029190654	
MD.MD.S.IT.A.1.80	DN80	MD(*)	029190354		029190754	
MD.MD.S.IT.A.1.100	DN100	MD(*)	029190454		029190854	

Model	Gas train	Operation	KR520A Code	KR520A Price €	KR525A Code	KR525A Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.PR.S.IT.A.1.50	2"	PR	029190953		-	
MD.PR.S.IT.A.1.65	DN65	PR	029191053		029191453	
MD.PR.S.IT.A.1.80	DN80	PR	029191153		029191553	
MD.PR.S.IT.A.1.100	DN100	PR	029191253		029191653	
MD.MD.S.IT.A.1.50	2"	MD(*)	029190954		-	
MD.MD.S.IT.A.1.65	DN65	MD(*)	029191054		029191454	
MD.MD.S.IT.A.1.80	DN80	MD(*)	029191154		029191554	
MD.MD.S.IT.A.1.100	DN100	MD(*)	029191254		029191654	

ELECTRONIC OPERATION

Model	Gas train	Operation	KP91A Code	KP91A Price €	KP92A Code	KP92A Price €	KP93A Code	KP93A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)								
MN.MD.S.xx.A.1.50.ES	2"	MD(*)	01208175S		01208215S		01208135S	
MN.MD.S.xx.A.1.65.ES	DN65	MD(*)	01208185S		01208225S		01208145S	
MN.MD.S.xx.A.1.80.ES	DN80	MD(*)	01208195S		01208235S		01208155S	
MN.MD.S.xx.A.1.100.ES	DN100	MD(*)	01208205S		01208245S		01208165S	
HEAVY OIL 400 cSt at 50° (50°E at 50°C)								
MD.MD.S.xx.A.1.50.ES	2"	MD(*)	01219175S		01219215S		01219135S	
MD.MD.S.xx.A.1.65.ES	DN65	MD(*)	01219185S		01219225S		01219145S	
MD.MD.S.xx.A.1.80.ES	DN80	MD(*)	01219195S		01219235S		01219155S	
MD.MD.S.xx.A.1.100.ES	DN100	MD(*)	01219205S		01219245S		01219165S2	

(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 238)
In compliance with DIRECTIVE 2009/142/CE
In compliance with DIRECTIVE E.M.C. 2004/108/CE and DIRECTIVE B.T. 2006/95/CE

ELECTRONIC OPERATION

Model	Gas train	Operation	KR512A Code	KR512A Price €	KR515A Code	KR515A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.MD.S.xx.A.1.50.ES	2"	MD(*)	02908015S28		02908055S28	
MN.MD.S.xx.A.1.65.ES	DN65	MD(*)	02908025S28		02908065S28	
MN.MD.S.xx.A.1.80.ES	DN80	MD(*)	02908035S28		02908075S28	
MN.MD.S.xx.A.1.100.ES	DN100	MD(*)	02908045S28		02908085S28	

Model	Gas train	Operation	KR520A Code	KR520A Price €	KR525A Code	KR525A Price €
HEAVY OIL 50 cSt at 50°C (7°E at 50°C)						
MN.MD.S.xx.A.1.50.ES	2"	MD(*)	02908095S		-	
MN.MD.S.xx.A.1.65.ES	DN65	MD(*)	02908105S		02908145S	
MN.MD.S.xx.A.1.80.ES	DN80	MD(*)	02908115S		02908155S	
MN.MD.S.xx.A.1.100.ES	DN100	MD(*)	02908125S		02908165S	

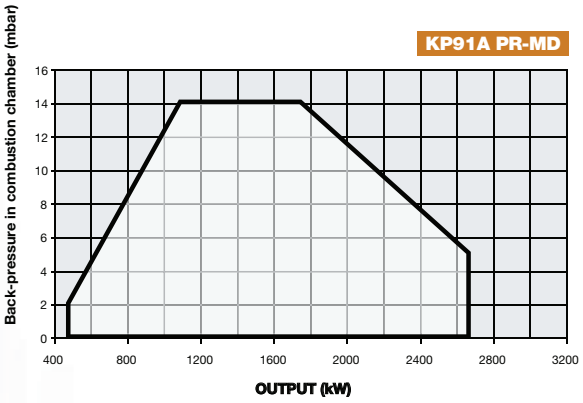
Model	Gas train	Operation	KR512A Code	KR512A Price €	KR515A Code	KR515A Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.MD.S.xx.A.1.50.ES	2"	MD(*)	02919015S		02919055S	
MD.MD.S.xx.A.1.65.ES	DN65	MD(*)	02919025S		02919065S	
MD.MD.S.xx.A.1.80.ES	DN80	MD(*)	02919035S		02919075S	
MD.MD.S.xx.A.1.100.ES	DN100	MD(*)	02919045S		02919085S	

Model	Gas train	Operation	KR520A Code	KR520A Price €	KR525A Code	KR525A Price €
HEAVY OIL 400 cSt at 50° (50°E at 50°C)						
MD.MD.S.xx.A.1.50.ES	2"	MD(*)	02919095S		-	
MD.MD.S.xx.A.1.65.ES	DN65	MD(*)	02919105S		02919145S	
MD.MD.S.xx.A.1.80.ES	DN80	MD(*)	02919115S		02919155S	
MD.MD.S.xx.A.1.100.ES	DN100	MD(*)	02919125S		02919165S	

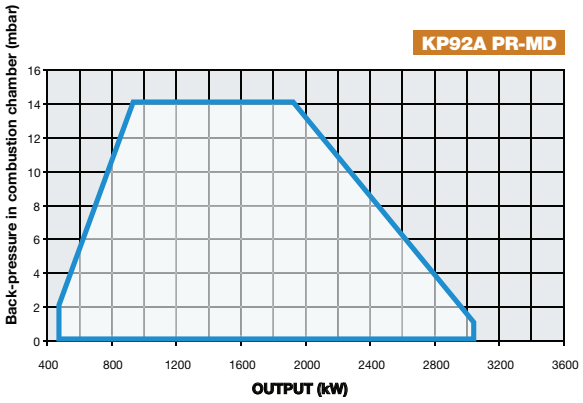
(*) In order for the supply to be completed, the burner must be equipped with the respective modulating probe (see accessory table, page 238)
In compliance with DIRECTIVE 2009/142/CE
In compliance with DIRECTIVE E.M.C. 2004/108/CE and DIRECTIVE B.T. 2006/95/CE

MECHANICAL ATOMIZATION

KP91A PR-MD



KP92A PR-MD



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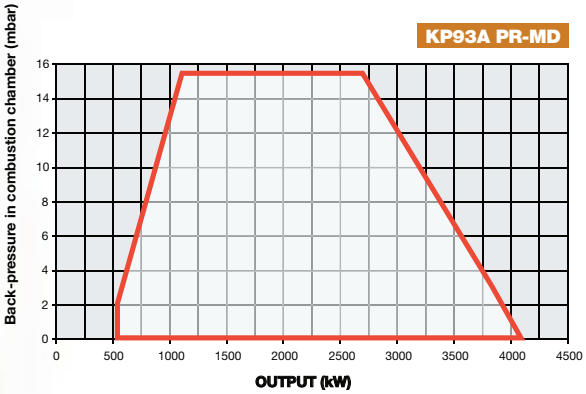
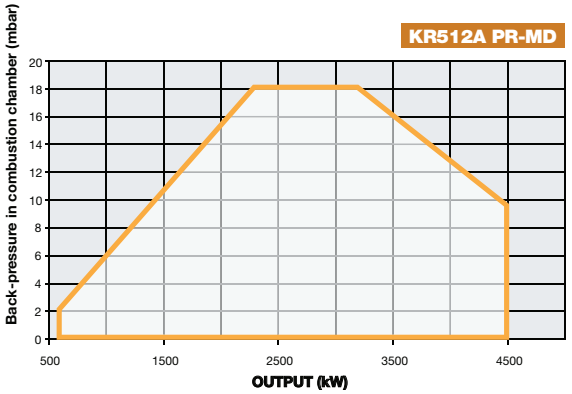
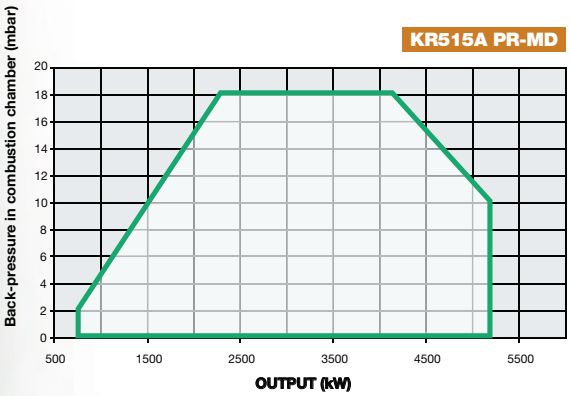


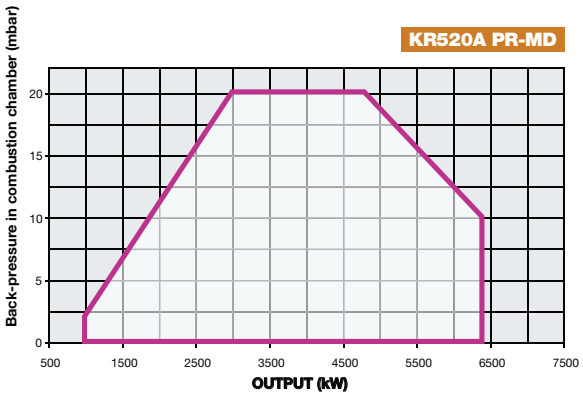
KR512A PR-MD



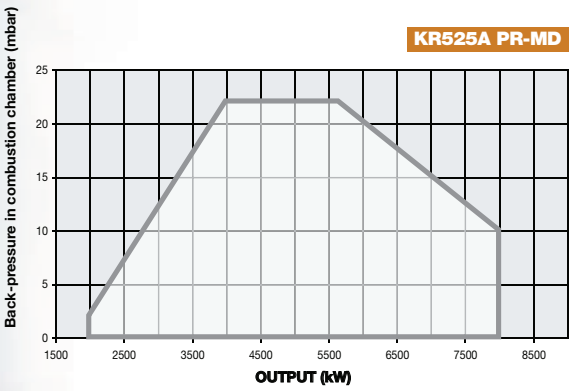
KR515A PR-MD



KR520A PR-MD

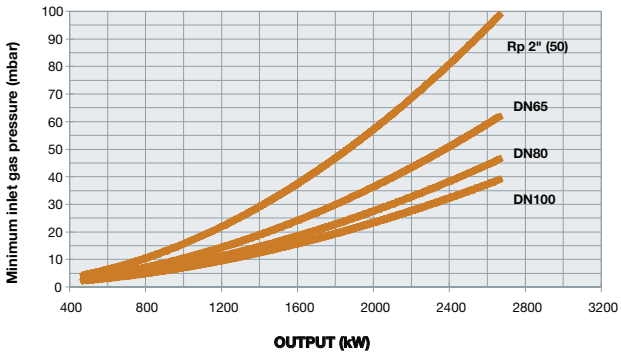


KR525A PR-MD

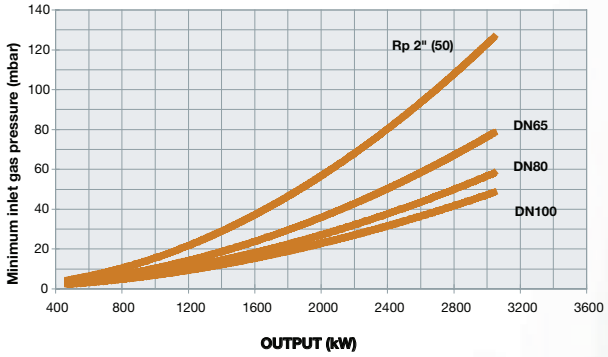


MECHANICAL ATOMIZATION

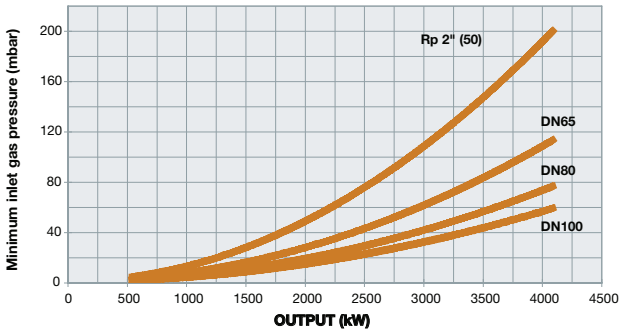
KP91 PR-MD



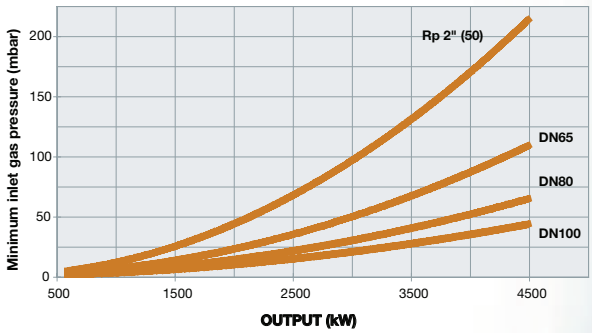
KP92 PR-MD



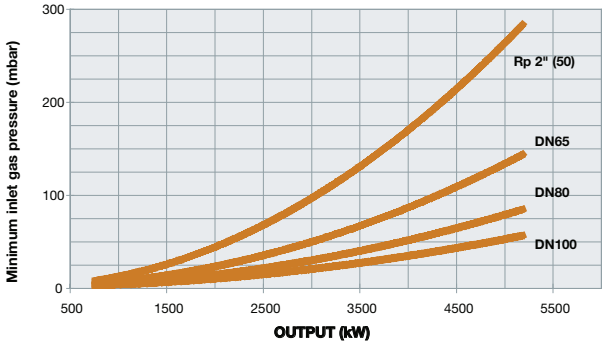
KP93 PR-MD



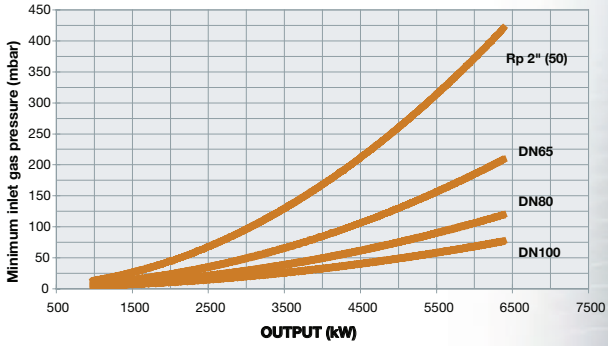
KR512 PR-MD



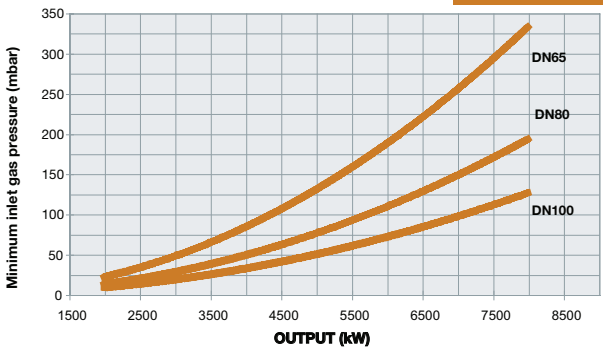
KR515 PR-MD



KR520 PR-MD



KR525 PR-MD



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.