

RD MASTERJETS

- For use with high pressure spray guns (e.g. SP 3000 E) and high pressure lances.
- Built-in three-step eddy current brake.
- Cooling sleeve.
- Wear resistant rotary action with HPS sealing technology / labyrinth seal (1800 bar).
- Hollow shaft precisely supported by bearings.
- Nozzle inserts are countersunk in the nozzle carrier.
- With blast back shield.



TYPICAL APPLICATIONS (FOR HANDHELD USE)

- For descaling and removal of paint from metal surfaces.
- To clean grids, shuttering/formwork, etc.
- Removal of concrete surfaces.
- To clean, remove paint from ships' hulls, turbines and ships' propellers and for "spot blasting".



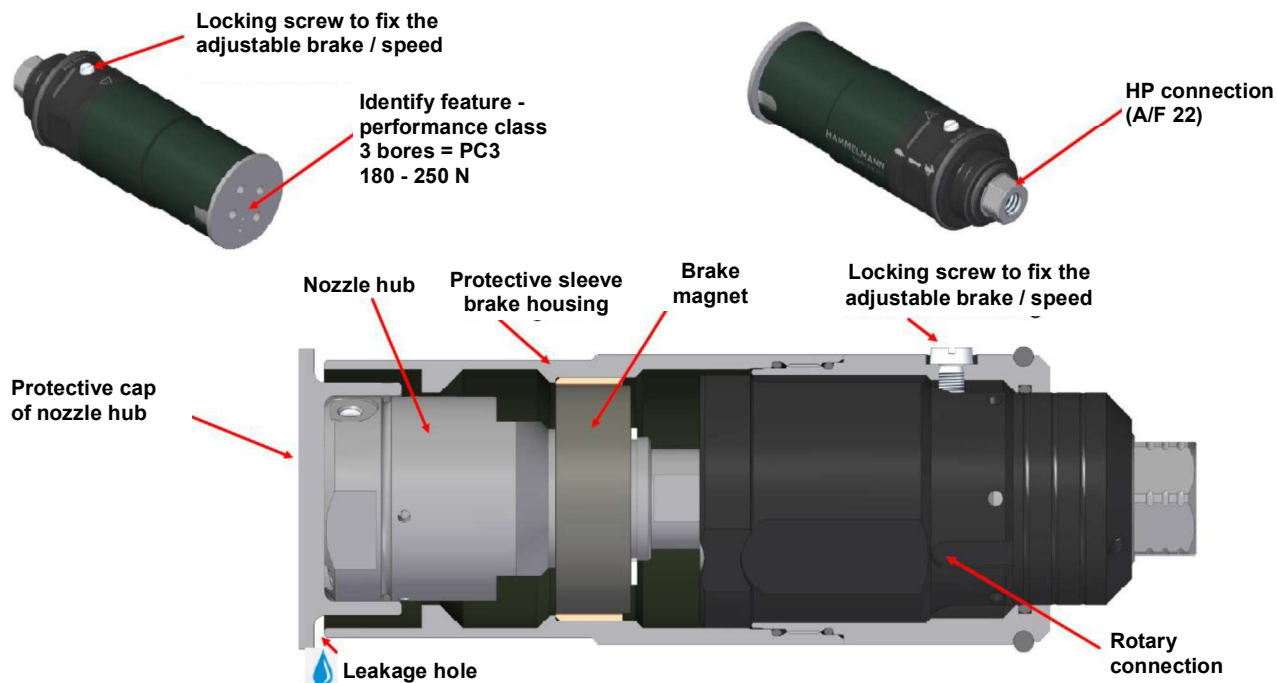
When working with hand held guns or lances the max. permissible axial reaction force is 250 N.

If the reaction force exceeds 150 N, the blasting tool must be fitted with a support device such as a shoulder stock.

Note

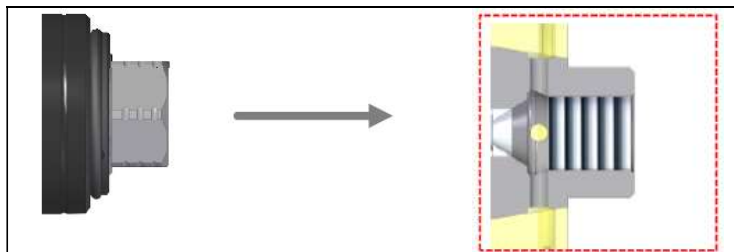
For detailed information see document "Product information RD MASTERJET".

CONSTRUCTION OF THE RD MASTERJET



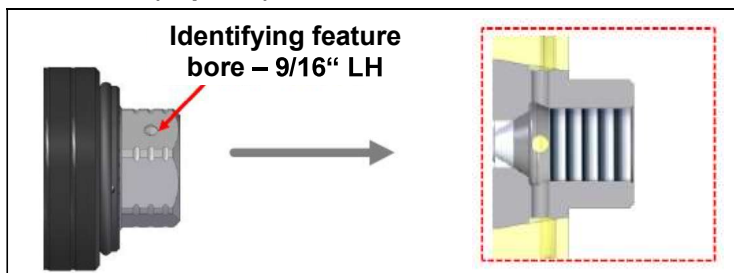
CONNECTION THREADS

Metric



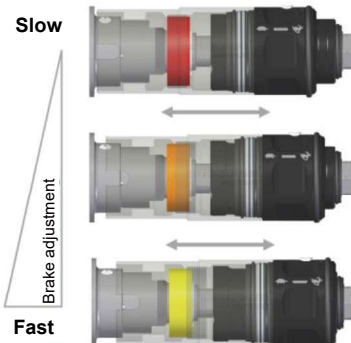
HP connection: M14 x 1.5 LH

American (imperial)



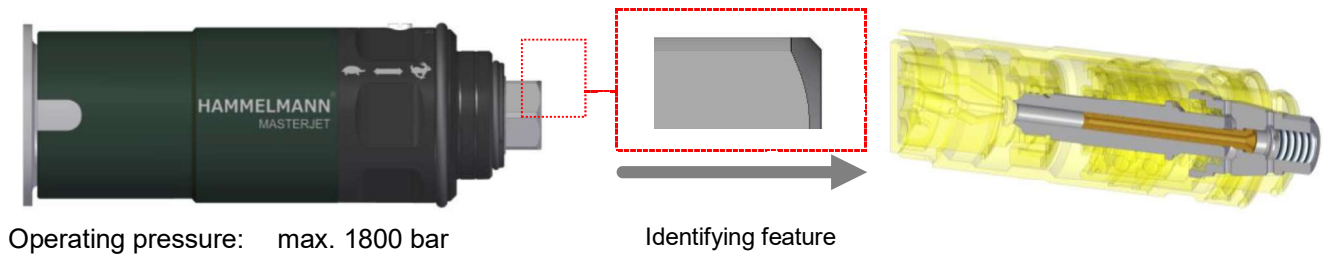
HP connection: 9/16" UNF LH

BRAKE ADJUSTMENT

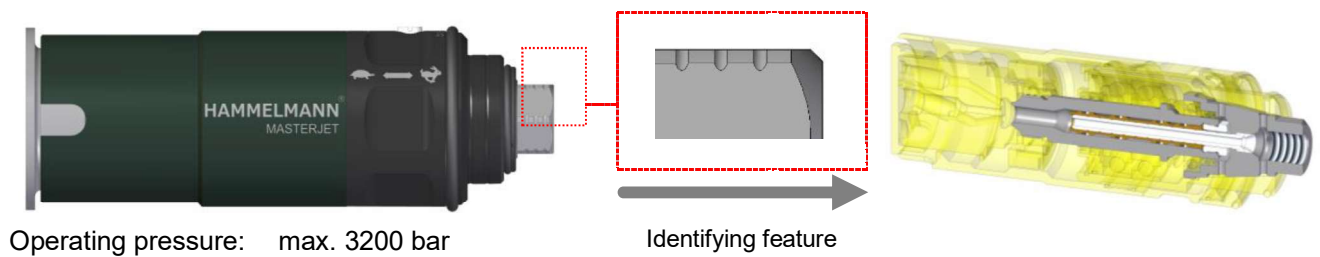


DIFFERENCES 1800 AND 3200 HPS

▪ Masterjet 1800



▪ Masterjet 3200



RD MASTERJETS PC1

6 NOZZLE DESIGN

13.A.28 – 08/2022

RD MASTERJETS – Performance class **PC1** FOR USE ON HP SPRAY GUNS

	RD MASTERJET 3200 HPS PC1	
	Code no.	Code no.
	00.00786.0327	00.00786.0332
HP connection:	M14 x 1.5 LH (60° metallic seal cone)	9/16" – 18 UNF LH (60° metallic seal cone)
Operating pressure:	max. 3200 bar	max. 3200 bar
	min. 500 bar	min. 500 bar
Flow rate:	max. 50 l/min	max. 50 l/min
Leakage:	approx. 0.2 - 0.6 l/min (max. 2.0 l/min during operation)	approx. 0.2 - 0.6 l/min (max. 2.0 l/min during operation)
Length:	194 mm	194 mm
Diameter:	57 mm	57 mm
Brake:	adjustable magnetic brake (variable speed)	adjustable magnetic brake (variable speed)
Sealing:	HPS - 3200 bar - i/d 3.2 mm (industrial design)	HPS - 3200 bar - i/d 3.2 mm (industrial design)
Reaction forces:	90 - 130 N → PC1 [see nozzle table]	90 - 130 N → PC1 [see nozzle table]
Rotation speed:	approx. 1000 - 3500 min ⁻¹ at 130 N reaction force approx. 800 - 2500 min ⁻¹ at 90 N reaction force	
Nozzle hub:	6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)	6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)
Nozzle inserts:	Nozzle design "P" (sapphire), max. 3000 bar Nozzle design "T" (diamond), max. 3200 bar Thread M10 (not part of the subassembly)	
Plug:	01.05214.0045 (not part of the assembly)	01.05214.0045 (not part of the assembly)
Protective cap:	01.01894.0067	01.01894.0067
Spare parts kit:	00.05617.0030	00.05617.0030
Adapter for SP 1000:	01.05320.0256 max. 1000 bar, 3/8"	---
Weight: (without protective cap)	1.0 kg	
Total weight:	1.4 kg	

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RD MASTERJETS PC1

6 NOZZLE DESIGN

13.A.29 – 08/2022

Nozzle table

RD MASTERJETS PC1 - 3200 bar

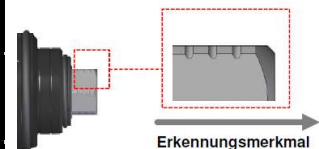
Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.35 mm	10 l/min	120 N	04.00790.0087
2500 bar	3 x 0.40 mm	12 l/min	125 N	04.00790.0088
2000 bar	3 x 0.45 mm	14 l/min	130 N	04.00790.0089
1500 bar	3 x 0.50 mm	15 l/min	120 N	04.00790.0090

Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.30 mm	8 l/min	90 N	04.00790.0086
2500 bar	3 x 0.35 mm	9 l/min	100 N	04.00790.0087
2000 bar	3 x 0.50 mm	11 l/min	100 N	04.00790.0090
1500 bar	3 x 0.45 mm	12 l/min	95 N	04.00790.0089

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	6 x 0.25 mm	11 l/min	120 N	04.00790.0085
2500 bar	3 x 0.25 mm	12 l/min	120 N	04.00790.0085
	3 x 0.30 mm			04.00790.0086
2000 bar	3 x 0.35 mm	14 l/min	130 N	04.00790.0087
	3 x 0.30 mm			04.00790.0086
1500 bar	3 x 0.40 mm	16 l/min	130 N	04.00790.0088
	3 x 0.35 mm			04.00790.0087

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.20 mm	9 l/min	95 N	04.00790.0084
	3 x 0.25 mm			04.00790.0085
2500 bar	6 x 0.25 mm	10 l/min	100 N	04.00790.0085
2000 bar	3 x 0.30 mm	11 l/min	95 N	04.00790.0086
	3 x 0.25 mm			04.00790.0085
1500 bar	3 x 0.30 mm	13 l/min	100 N	04.00790.0086
	3 x 0.25 mm			04.00790.0085

3200 bar
Identifying feature HPS
[3 grooves at key flat]



If the nozzle inserts chosen are not suitable and cause a too high rotational speed of the nozzle hub, the rotorjet may suffer irreparable damage.

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RD MASTERJETS PC2

6 NOZZLE DESIGN

13.A.30 – 08/2022

RD MASTERJETS – Performance class **PC2**

FOR USE ON HP SPRAY GUNS

	RD MASTERJET 1800 PC3		RD MASTERJET 3200 HPS PC3	
	Code no.	Code no.	Code no.	Code no.
	00.00786.0314	00.00786.0315	00.00786.0304	00.00786.0305
HP connection:	M14 x 1.5 LH	9/16" – 18 UNF LH	M14 x 1.5 LH	9/16" – 18 UNF LH
	(60° metallic seal cone)		(60° metallic seal cone)	
Operating pressure:	max. 1800 bar		max. 3200 bar	
	min. 100 bar		min. 500 bar	
Flow rate:	max. 60 l/min		max. 50 l/min	
Leakage:	approx. 0.3 - 1.2 l/min (when new) depending on the operating pressure (max. 2.5 l/min during operation)		approx. 0.2 - 0.6 l/min (when new) (max. 2.0 l/min during operation)	
Length:	176 mm		176 mm	
Diameter:	58 mm		58 mm	
Brake:	adjustable magnetic brake (variable speed)		adjustable magnetic brake (variable speed)	
Sealing:	Labyrinth - 1800 bar - i/d 3.5 mm		HPS - 3200 bar - i/d 3.2 mm (industrial design)	
Reaction forces:	130 - 180 N → PC2 [see nozzle table]		130 - 180 N → PC2 [see nozzle table]	
Rotation speed:	approx. 1000 - 3500 min ⁻¹ at 180 N reaction force approx. 800 - 2500 min ⁻¹ at 130 N reaction force		3-stage adjustable via eddy current brake	
Nozzle hub:	6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)		6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)	
Nozzle inserts:	Nozzle design "P" (sapphire), max. 1800 bar Nozzle design "T" (diamond), max. 1800 bar Thread M10 (not part of the subassembly)		Nozzle design "P" (sapphire), max. 3000 bar Nozzle design "T" (diamond), max. 3200 bar Thread M10 (not part of the subassembly)	
Plug:	01.05214.0045 (not part of the assembly)		01.05214.0045 (not part of the assembly)	
Protective cap:	01.01894.0068		01.01894.0068	
Spare parts kit:	00.05617.0031		00.05617.0030	
Adapter for SP 1000:	01.05320.0256 max. 1000 bar, 3/8"	---	01.05320.0256 max. 1000 bar, 3/8"	---
Weight: (without protective cap)	1.0 kg			
Total weight:	1.2 kg			

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RD MASTERJETS PC2

6 NOZZLE DESIGN

13.A.31 – 08/2022

Nozzle table

RD MASTERJETS PC2 - 1800 bar

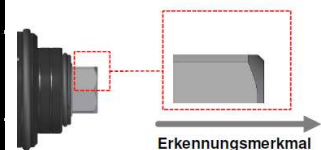
Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	3 x 0.55 mm	18 l/min	170 N	04.00790.0091
1500 bar	3 x 0.45 mm	20 l/min	170 N	04.00790.0089
1000 bar	3 x 0.75 mm	25 l/min	175 N	04.00790.0192
500 bar	3 x 1.05 mm	35 l/min	175 N	04.00790.xxxx

Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	3 x 0.50 mm	15 l/min	140 N	04.00790.0090
1500 bar	3 x 0.55 mm	17 l/min	130 N	04.00790.0091
1000 bar	3 x 0.65 mm	19 l/min	135 N	04.00790.0186
500 bar	3 x 0.90 mm	28 l/min	140 N	04.00790.0195

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	6 x 0.40 mm	20 l/min	180 N	04.00790.0088
1500 bar	3 x 0.45 mm	21 l/min	170 N	04.00790.0089
	3 x 0.40 mm			04.00790.0088
1000 bar	3 x 0.50 mm	25 l/min	175 N	04.00790.0090
	3 x 0.55 mm			04.00790.0091
500 bar	6 x 0.75 mm	36 l/min	180 N	04.00790.0192

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	6 x 0.35 mm	15 l/min	140 N	04.00790.0087
1500 bar	3 x 0.40 mm	16 l/min	130 N	04.00790.0088
	3 x 0.35 mm			04.00790.0087
1000 bar	6 x 0.45 mm	19 l/min	130 N	04.00790.0089
500 bar	6 x 0.65 mm	27 l/min	130 N	04.00790.0186

1800 bar
Identifying feature
[even key flat]



The nozzle selection tables are exemplary. Other nozzle configurations are also possible in regard of the permissible reaction force (130 - 180 N).



If the nozzle inserts chosen are not suitable and cause a too high rotational speed of the nozzle hub, the rotorjet may suffer irreparable damage.

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RD MASTERJETS PC2

6 NOZZLE DESIGN

13.A.32 – 08/2022

Nozzle table

RD MASTERJETS **PC2 - 3200 bar**

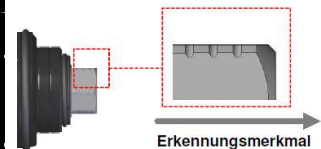
Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.40 mm	13 l/min	150 N	04.00790.0088
2500 bar	3 x 0.45 mm	15 l/min	160 N	04.00790.0089
2000 bar	3 x 0.50 mm	16 l/min	160 N	04.00790.0090
1500 bar	3 x 0.60 mm	20 l/min	170 N	04.00790.0092

Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.35 mm	10 l/min	115 N	04.00790.0087
2500 bar	3 x 0.40 mm	12 l/min	130 N	04.00790.0088
2000 bar	3 x 0.45 mm	13 l/min	130 N	04.00790.0089
1500 bar	3 x 0.55 mm	16 l/min	140 N	04.00790.0091

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	6 x 0.30 mm	15 l/min	170 N	04.00790.0086
2500 bar	3 x 0.35 mm	16 l/min	170 N	04.00790.0087
	3 x 0.30 mm			04.00790.0086
2000 bar	3 x 0.40 mm	18 l/min	180 N	04.00790.0088
	3 x 0.35 mm			04.00790.0087
1500 bar	3 x 0.45 mm	20 l/min	170 N	04.00790.0089
	3 x 0.40 mm			04.00790.0088

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.30 mm	12 l/min	145 N	04.00790.0086
	3 x 0.25 mm			04.00790.0085
2500 bar	6 x 0.30 mm	13 l/min	140 N	04.00790.0086
2000 bar	3 x 0.35 mm	14 l/min	130 N	04.00790.0087
	3 x 0.30 mm			04.00790.0086
1500 bar	3 x 0.40 mm	16 l/min	130 N	04.00790.0088
	3 x 0.35 mm			04.00790.0087

3200 bar
Identifying feature HPS
[3 grooves at key flat]



If the nozzle inserts chosen are not suitable and cause a too high rotational speed of the nozzle hub, the rotorjet may suffer irreparable damage.

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RD MASTERJETS PC3

6 NOZZLE DESIGN

13.A.33 – 08/2022

RD MASTERJETS – Performance class **PC3** FOR USE ON HP SPRAY GUNS

	RD MASTERJET 1800 PC3		RD MASTERJET 3200 HPS PC3	
	Code no.	Code no.	Code no.	Code no.
	00.00786.0312	00.00786.0313	00.00786.0302	00.00786.0303
HP connection:	M14 x 1.5 LH	9/16" – 18 UNF LH	M14 x 1.5 LH	9/16" – 18 UNF LH
	(60° metallic seal cone)		(60° metallic seal cone)	
Operating pressure:	max. 1800 bar		max. 3200 bar	
	min. 100 bar		min. 500 bar	
Flow rate:	max. 60 l/min		max. 50 l/min	
Leakage:	approx. 0.3 - 1.2 l/min (when new) depending on the operating pressure (max. 2.5 l/min during operation)		approx. 0.2 - 0.6 l/min (when new) (max. 2.0 l/min during operation)	
Length:	176 mm		176 mm	
Diameter:	58 mm		58 mm	
Brake:	adjustable magnetic brake (variable speed)		adjustable magnetic brake (variable speed)	
Sealing:	Labyrinth - 1800 bar - i/d 3.5 mm		HPS - 3200 bar - i/d 3.2 mm (industrial design)	
Reaction forces:	180 - 250 N → PC3 [see nozzle table]		180 - 250 N → PC3 [see nozzle table]	
Rotation speed:	approx. 1000 - 3500 min ⁻¹ at 250 N reaction force approx. 800 - 2500 min ⁻¹ at 180 N reaction force		3-stage adjustable via eddy current brake	
Nozzle hub:	6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)		6/4/3/2 nozzles (2, 3, 4 or 6 nozzles design P/T)	
Nozzle inserts:	Nozzle design "P" (sapphire), max. 3000 bar Nozzle design "T" (diamond), max. 3200 bar Thread M10 (not part of the subassembly)		Nozzle design "P" (sapphire), max. 3000 bar Nozzle design "T" (diamond), max. 3200 bar Thread M10 (not part of the subassembly)	
Plug:	01.05214.0045 (not part of the assembly)		01.05214.0045 (not part of the assembly)	
Protective cap:	01.01894.0066		01.01894.0066	
Spare parts kit:	00.05617.0031		00.05617.0030	
Adapter for SP 1000:	01.05320.0256 max. 1000 bar, 3/8"	---	01.05320.0256 max. 1000 bar, 3/8"	---
Weight: (without protective cap)	1.0 kg			
Total weight:	1.25 kg			

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RD MASTERJETS PC3

6 NOZZLE DESIGN

13.A.34 – 08/2022

Nozzle table

RD MASTERJETS **PC3 - 1800 bar**

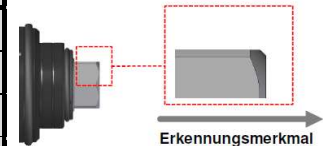
Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	3 x 0.65 mm	26 l/min	245 N	04.00790.0186
1500 bar	3 x 0.70 mm	27 l/min	240 N	04.00790.0093
1000 bar	3 x 0.85 mm	33 l/min	230 N	04.00790.0193
500 bar	3 x 1.25 mm	50 l/min	250 N	04.00790.0197

Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	3 x 0.55 mm	18 l/min	180 N	04.00790.0091
1500 bar	3 x 0.60 mm	20 l/min	180 N	04.00790.0092
1000 bar	3 x 0.75 mm	25 l/min	185 N	04.00790.0192
500 bar	3 x 1.05 mm	35 l/min	180 N	04.00790.xxxx

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	6 x 0.45 mm	24 l/min	240 N	04.00790.0089
1500 bar	6 x 0.50 mm	28 l/min	240 N	04.00790.0090
1000 bar	3 x 0.65 mm	35 l/min	250 N	04.00790.0186
	3 x 0.60 mm			04.00790.0092
500 bar	3 x 0.85 mm	49 l/min	250 N	04.00790.0193
	3 x 0.90 mm			04.00790.0095

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
1800 bar	6 x 0.40 mm	19 l/min	185 N	04.00790.0088
1500 bar	3 x 0.40 mm	20 l/min	180 N	04.00790.0088
	3 x 0.45 mm			04.00790.0089
1000 bar	3 x 0.55 mm	25 l/min	180 N	04.00790.0091
	3 x 0.50 mm			04.00790.0090
500 bar	6 x 0.75 mm	36 l/min	180 N	04.00790.0192

1800 bar
Identifying feature
[even key flat]



The nozzle selection tables are exemplary. Other nozzle configurations are also possible in regard of the permissible reaction force (180 - 250 N).



If the nozzle inserts chosen are not suitable and cause a too high rotational speed of the nozzle hub, the rotorjet may suffer irreparable damage.

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RD MASTERJETS PC3

6 NOZZLE DESIGN

13.A.35 – 08/2022

Nozzle table

RD MASTERJETS **PC3 - 3200 bar**

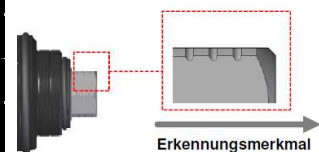
Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.50 mm	20 l/min	240 N	04.00790.0090
2500 bar	3 x 0.55 mm	22 l/min	245 N	04.00790.0091
2000 bar	3 x 0.60 mm	24 l/min	230 N	04.00790.0092
1500 bar	3 x 0.70 mm	27 l/min	240 N	04.00790.0093

Operating pressure	3 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	3 x 0.45 mm	16 l/min	195 N	04.00790.0089
2500 bar	3 x 0.50 mm	18 l/min	200 N	04.00790.0090
2000 bar	3 x 0.55 mm	20 l/min	195 N	04.00790.0091
1500 bar	3 x 0.60 mm	21 l/min	175 N	04.00790.0092

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	6 x 0.35 mm	19 l/min	230 N	04.00790.0087
2500 bar	3 x 0.35 mm	20 l/min	220 N	04.00790.0087
	3 x 0.40 mm			04.00790.0088
2000 bar	3 x 0.40 mm	23 l/min	230 N	04.00790.0088
	3 x 0.45 mm			04.00790.0089
1500 bar	6 x 0.55 mm	27 l/min	235 N	04.00790.0091

Operating pressure	6 nozzles design "P"	Flow rate	Reaction force	Code no. nozzle
3000 bar	6 x 0.30 mm	14 l/min	175 N	04.00790.0086
2500 bar	6 x 0.35 mm	17 l/min	200 N	04.00790.0087
2000 bar	3 x 0.35 mm	19 l/min	180 N	04.00790.0087
	3 x 0.40 mm			04.00790.0088
1500 bar	3 x 0.40 mm	20 l/min	175 N	04.00790.0088
	3 x 0.45 mm			04.00790.0089

3200 bar
Identifying feature HPS
[3 grooves at key flat]



The nozzle selection tables are exemplary. Other nozzle configurations are also possible in regard of the permissible reaction force (180 - 250 N).



If the nozzle inserts chosen are not suitable and cause a too high rotational speed of the nozzle hub, the rotorjet may suffer irreparable damage.

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