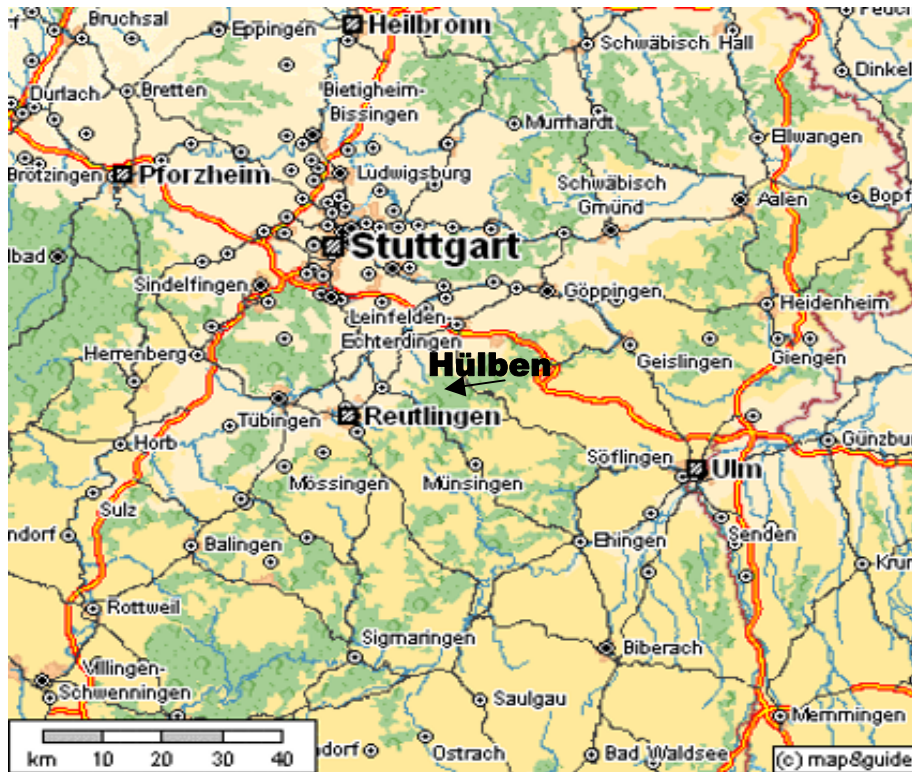




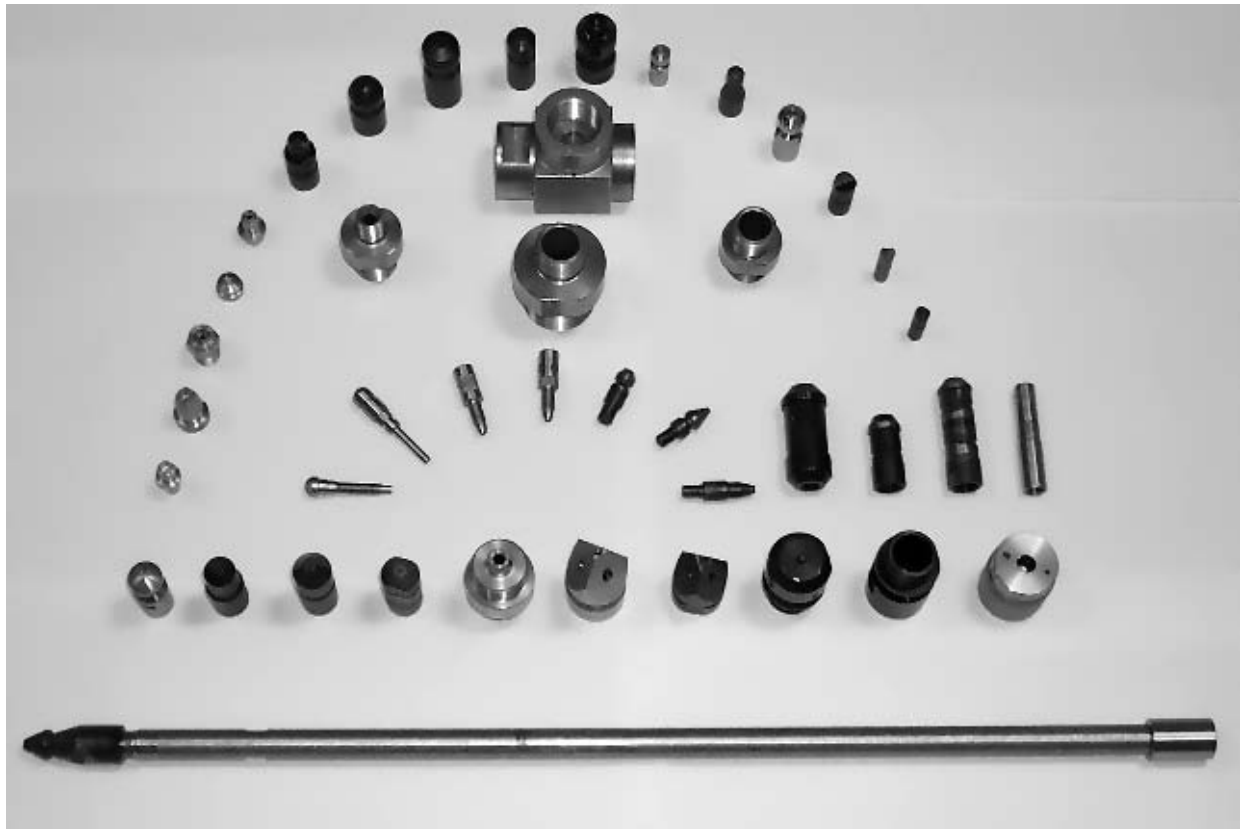
Brendle / Dübre





Brendle / Dübre

High Pressure Nozzles and Components



1000 bar, 2000 bar and more

Catalogue 2004/2005



Brendle / Dübren

High Pressure by DÜBRE

A brand name with quality



Headquater and administration



Factory 2

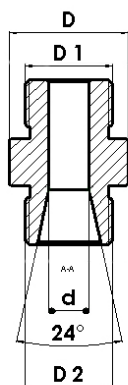
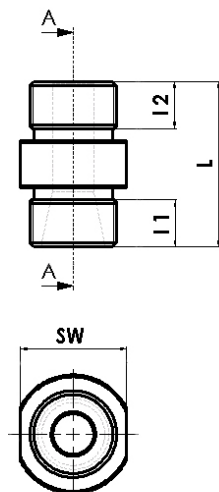
**Quality and
competence
since 25 years !**





Brendle / Dübre

Standard adapter flat sealing 1000 bar and 2000 bar 1 x flat sealing - 1 x cone 24°



Order example:

Standard adapter flat 1000 bar SAF-04 with M 24 x 1,5 / M 24 x 1,5 =
2404.09.09

Order-No. 1000 bar	Order-No. 2000 bar	Description	Ø D mm	L mm	Wrench size SW	Connecction thread outside D 1	Connecction thread inside D 2	thread length l 1 mm	thread length l 2 mm	Ø drilling d mm
2401.08.08	2412.08.08	SAF-01	30	42	27	M 22 x 1,5	M 22 x 1,5	15	15	10
2402.09.08	2413.09.08	SAF-02	30	46	27	M 24 x 1,5	M 22 x 1,5	19	15	10
2403.09.15	2414.09.15	SAF-03	30	50	27	M 24 x 1,5	1/4"	19	17	10
2404.09.09	2415.09.09	SAF-04	30	50	27	M 24 x 1,5	M 24 x 1,5	19	19	10
2405.09.18	2416.09.18	SAF-05	30	50	27	M 24 x 1,5	3/4"	19	16	10
2406.11.09	2417.11.09	SAF-06	45	60	41	M 36 x 2	M 24 x 1,5	24	19	10
2407.11.19	2418.11.19	SAF-07	45	75	41	M 36 x 2	1"	24	30	17
2408.11.11	2419.11.11	SAF-08	45	65	41	M 36 x 2	M 36 x 2	24	24	17
2409.12.12	2420.12.12	SAF-09	45	55	41	M 38 x 1,5	M 38 x 1,5	20	20	17
2410.13.19	2421.13.19	SAF-10	50	75	46	M 42 x 2	1"	28	30	17
2411.13.13	2422.13.13	SAF-11	50	75	46	M 42 x 2	M 42 x 2	28	28	20

Special tools according to customer's requirement are possible anytime!

Used materials: 1000 bar
tempered steel

2000 bar
strain hardening stainless steel

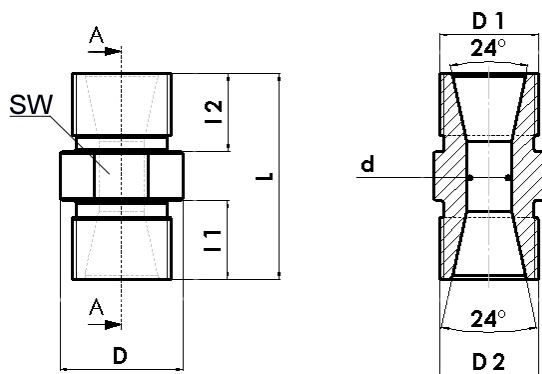
Internet: www.brendle-gmbh.de
E-Mail: info@brendle-gmbh.de

Brendle GmbH, Lerchenstr.19+36, 72584 Hülben
Tel.: 07125/9699-0 Fax: 07125/9699-10



Brendle / Dübren

Standard adapter 1000 bar and 2000 bar 2 x cone 24°



Order example:

Standard adapter 1000 bar SA-15 with M 36 x 2 / M 36 x 2 =
2315.11.11

Order-No. 1000 bar	Order-No. 2000 bar	Description	Ø D mm	L mm	Wrench size SW	Connexion thread outside D 1	Connexion thread inside D 2	thread length l 1 mm	thread length l 2 mm	Ø drilling d mm
2301.26.26	2321.26.26	SA-01	30	42	27	M 18 x 1,5	M 18 x 1,5	15	15	8,5
2302.08.15	2322.08.15	SA-02	30	50	27	M 22 x 1,5	1/4"	22	17	5,5
2303.08.26	2323.08.26	SA-03	30	42	27	M 22 x 1,5	M 18 x 1,5	15	15	8,5
2304.08.08	2324.08.08	SA-04	30	42	27	M 22 x 1,5	M 22 x 1,5	15	15	10
2305.09.14	2325.09.14	SA-05	30	48	27	M 24 x 1,5	1/8"	19	15	3,5
2306.09.15	2326.09.15	SA-06	30	50	27	M 24 x 1,5	1/4"	19	17	5,5
2307.09.17	2327.09.17	SA-07	30	50	27	M 24 x 1,5	1/2"	19	19	10
2308.09.08	2328.09.08	SA-08	30	46	27	M 24 x 1,5	M 22 x 1,5	19	15	10
2309.09.09	2329.09.09	SA-09	30	50	27	M 24 x 1,5	M 24 x 1,5	19	19	10
2310.09.19	2330.09.19	SA-10	40	75	36	M 24 x 1,5	1"	19	28	10
2311.09.10	2331.09.10	SA-11	40	75	36	M 24 x 1,5	M 33 x 2	19	28	10
2312.11.09	2332.11.09	SA-12	45	60	41	M 36 x 2	M 24 x 1,5	24	19	14
2313.11.19	2333.11.19	SA-13	45	75	41	M 36 x 2	1"	24	30	17
2314.11.22	2334.11.22	SA-14	45	75	41	M 36 x 2	1" NPT	24	30	17
2315.11.11	2335.11.11	SA-15	45	65	41	M 36 x 2	M 36 x 2	24	24	17
2316.12.12	2336.12.12	SA-16	45	55	41	M 38 x 1,5	M 38 x 1,5	25	25	17
2317.13.09	2337.13.09	SA-17	50	67	46	M 42 x 2	M 24 x 1,5	28	19	14
2318.13.19	2338.13.19	SA-18	50	75	46	M 42 x 2	1"	28	30	17
2319.13.11	2339.13.11	SA-19	50	73	46	M 42 x 2	M 36 x 2	28	24	17
2320.13.13	2340.13.13	SA-20	50	75	46	M 42 x 2	M 42 x 2	28	28	20

Special tools according to customer's requirement are possible anytime!

Used materials: 1000 bar
tempered steel

2000 bar
strain hardening stainless steel



Brendle / Dübre

Brendle GmbH is in the market for more than 25 years. Since then we have developed into one of the leading companies in the sewer cleaning sector.

With the experience that we collected in this area, we want to offer you also our competence in the high-pressure cleaning sector.

From the beginning we have always paid particular attention to detail and now this is a well-established daily routine for us.

With our staff of highly motivated and flexible workers we meet the highest standards. They improve their knowledge and skills continually with CNC training courses and therefore are always up to date with the latest developments in technology.

Due to this technical knowledge and skills, and up-to-date modern plant, we can guarantee you a precision and reliability that is desirable for you in the high-pressure cleaning area.

Best regards

Andreas Brendle
Managing Director



DÜBRE



Explanation

1. Nozzle inserts (reference number)

0 = none; **1** = ceramic; **2** = tempered steel; **3** = sapphire

2. used threads (reference number)

reference number	thread	reference number	thread	reference number	thread
01	M 3	11	M 36 x 2	21	1 ½"
02	M 4	12	M 38 x 1,5	22	1 " NPT
03	M 6	13	M 42 x 2	23	NG 15
04	M 7	14	⅛"	24	LG 22
05	M 8	15	¼"	25	LG 22 NPT
06	M 10 x 1	16	⅜"	26	M 18 x 1,5
07	M 12 x 1	17	½"	27	M 5
08	M 22 x 1,5	18	¾"	28	
09	M 24 x 1,5	19	1"	29	
10	M 33 x 2	20	1 ¼"	30	

**Products are subject to alteration
due to technical progress.**

**We produce our nozzles for the given
pressure, if you use the nozzle with a
pressure that is not given, we assume no
liability for resulting damages.**

Every passing on as well as multiplication of this entrusted documents as well as every utilization and announcement of his (its) content are permitted only for the arranged purpose. Offences oblige to damages.

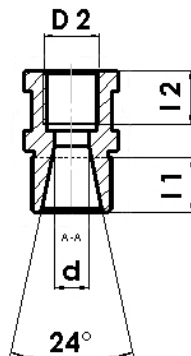
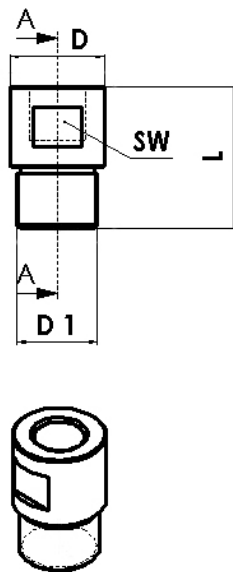
All rights (laws) for the case the patent, utility model entry are left.

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Brendle / Dübre

Lance Holder 1000 bar and 2000 bar



Order example:

Lance Holder LH-02 1000 bar with M 24 x 1,5 / 1/4" =

4402.09.15

Order-No. 1000 bar	Order-No. 2000 bar	Description	Ø D mm	L mm	Wrench size SW	Connecction thread outside D 1	Connecction thread inside D 2	thread length l 1 mm	thread length l 2 mm	Ø drilling d mm
4401.09.14	4404.09.14	LH-01	28	42	24	M 24 x 1,5	1/8"	16	16	6
4402.09.15	4405.09.15	LH-02	28	42	24	M 24 x 1,5	1/4"	16	16	8
4403.09.16	4406.09.16	LH-03	28	42	24	M 24 x 1,5	3/8"	16	16	10

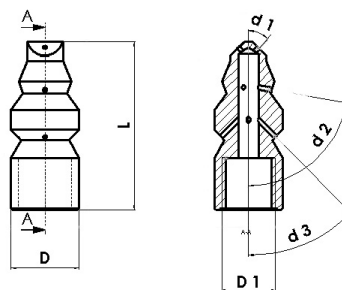
Special tools according to customer`s requirement are possible anytime!

Used materials: 1000 bar 2000 bar
 tempered steel strain hardening stainless steel



Brendle / Dübre

Lance Nozzles with Stage Form 1000 bar and 2000 bar



Used materials:

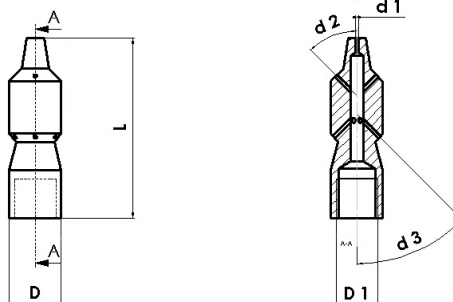
1000 bar:
tempered steel

2000 bar:
strain
hardening
stainless steel

Order-No. 1000 bar	Order-No. 2000 bar	Description	L mm	D mm	Connection thread D 1	d 1 45°	d 2 80°	d 3 45°
4801.04	4804.04	LDP 01	38	10	M 7	2 x 45°	4 x 80°	4 x 45°
4802.14	4805.14	LDP 02	40	13	1/8"	2 x 45°	4 x 80°	4 x 45°
4803.15	4806.15	LDP 03	42	17	1/4"	2 x 45°	4 x 80°	4 x 45°

Special tools according to customer`s requirement are possible anytime!

Lance Nozzles with Peak 1000 bar and 2000 bar



Used materials:

1000 bar:
tempered steel

2000 bar:
strain
hardening
stainless steel

Order-No. 1000 bar	Order-No. 2000 bar	Description	L mm	D mm	Connection thread D 1	d 1 VS	d 2 45°	d 3 45°
4901.04	4904.04	LDS 01	42	10	M 7	1 x	3 x 45°	6 x 45°
4902.14	4905.14	LDS 02	50	13	1/8"	1 x	3 x 45°	6 x 45°
4903.15	4906.15	LDS 03	62	18	1/4"	1 x	3 x 45°	6 x 45°

Special tools according to customer`s requirement are possible anytime!



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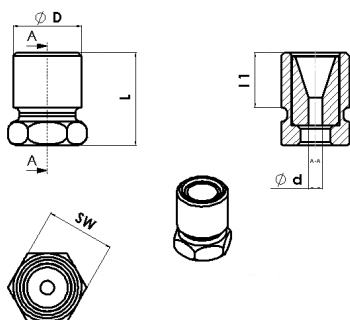


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Screw-in Nozzles with ceramic for max. 1000 bar

The cleaning performance of a high pressure flushing arrangement depends on many factors. The choice of nozzles has a decisive influence on the cleaning performance. If the nozzles wear out quickly the sewer cleaning performance reduces considerably. Here the use of ceramic nozzles is recommended. The ceramic Screw-in Nozzles made by Brendle offer the following advantages:

- a hydrodynamic tested form
- a constant hard full jet
- a special choice of material to provide a longer life
- no pressure decline caused by a premature wear behaviour
- no change of nozzle jet configuration / pattern
- a very high cleaning performance for a long time



Suitable for water tools from : different producers

Order example:

Screw-in Nozzle with ceramic M 6 ASK with drilling diameter Ø 1,40 mm

1503.140

Order-No.	Description	L mm	Connection thread D	l 1 mm	wrench size SW	Ø d from - to (mm)
1501.xxx	M 4 ASK	5,30	M 4	3,5	3	0,30 – 1,80
1502.xxx	M 5 ASK	5,30	M 5	3,5	4	0,40 – 1,80
1503.xxx	M 6 ASK	7,30	M 6	5,4	5	0,40 – 3,00
1504.xxx	M 8 ASK	7,30	M 8	5,4	7	0,40 – 3,00
1505.xxx	M 10 ASK	13,50	M 10x1	8	10	0,70 – 4,00
1506.xxx	R 1/8"	15,30	1/8"	8	13	0,70 – 4,00
1507.xxx	NG - 15	15,30	1/4"	8	17	0,70 – 4,00
1508.xxx	NG - 14	15,00	1/4"	8	14	0,70 – 4,00
1509.xxx	LG - 22	18,20	1/4"	8	14	0,70 – 4,00
1510.xxx	LG - 22 NPT	18,20	1/4"	8	14	0,70 – 4,00
1511.xxx	M 4 ISK	5,30	M 4	3,5	---	0,30 – 1,80
1512.xxx	M 5 ISK	5,30	M 5	3,5	---	0,40 – 1,80
1513.xxx	M 6 ISK	7,30	M 6	5,4	---	0,40 – 3,00
1514.xxx	M 8 ISK	7,30	M 8	5,4	---	0,40 – 3,00
1515.xxx	M 10 ISK	13,50	M 10	8	---	0,40 – 3,00
1516.xxx	M 12 ISK	21,20	M 12	10	---	0,40 – 4,00

Reference number:

Please use this number in every order !

The available drilling diameters have the reference number:
xxx :

from
0,30 mm –
4,00 mm

In steps of 0,1 mm

e.g.

Ø 1,20 mm = 120
Ø 0,40 mm = 040
etc.

ASK=
hexagon head

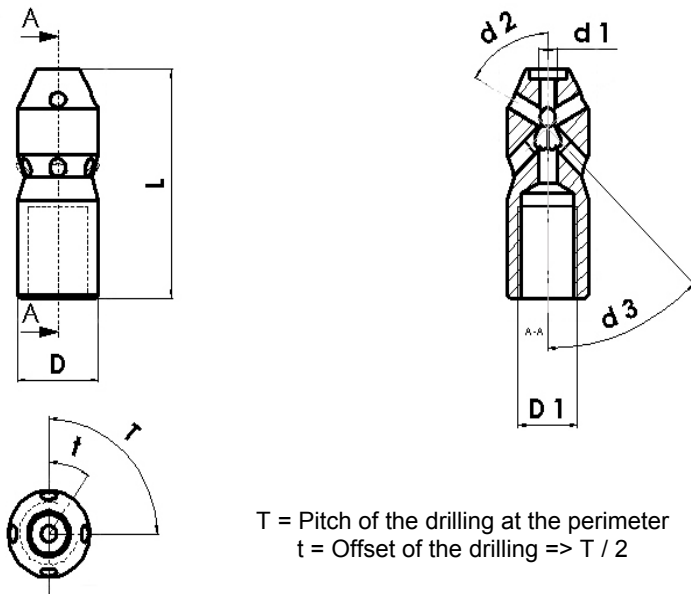
ISK=
hexagon socket

All nozzles are made of tempered steel.



Brendle / Dübre

Lance Nozzles with inserts 1000 bar and 2000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°



Order example:

Lance Nozzle 1000 bar LD 08E with connection thread 1/8"

2251.14

For your orders please indicate pressure and performance in liters of the used pump!

Order-No. 1000 bar	Order-No. 2000 bar	Description	L mm	D mm	Nozzle inserts	Connection thread D 1	d 1 VS	d 2 60°	d 3 45°
2250.14	2256.14	LD 07E	35	14	M 3	1/8"	1 x	---	6 x 45°
2251.14	2257.14	LD 08E	35	14	M 3	1/8"	1 x	2 x 60°	8 x 45°
2252.14	2258.14	LD 09E	35	14	M 3	1/8"	1 x	4 x 60°	6 x 45°
2253.15	2259.15	LD 10E	35	17	M 3	1/4"	1 x	---	6 x 45°
2254.15	2260.15	LD 11E	35	17	M 3	1/4"	1 x	2 x 60°	8 x 45°
2255.15	2261.15	LD 12E	35	17	M 3	1/4"	1 x	4 x 60°	6 x 45°

Special tools according to customer's requirement are possible anytime!

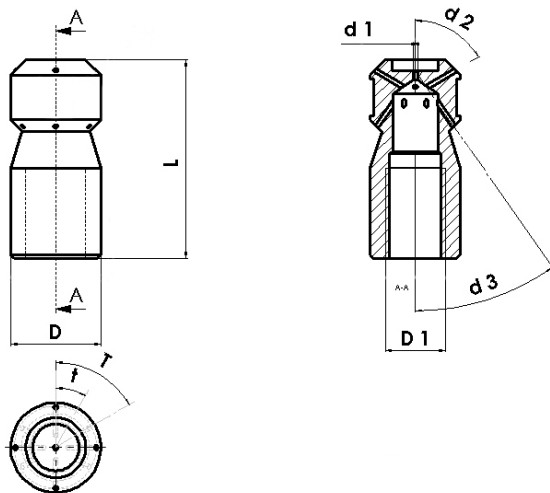
Used materials: **1000 bar**
 tempered steel

2000 bar
strain hardening stainless steel



Brendle / Dübre

Lance Nozzles drilled 1000 bar and 2000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°

Order example:

Lance Nozzle 1000 bar LD 08 with connection thread 1/8"

2208.14

For your orders please indicate pressure and performance in liters of the used pump!

Order-No. 1000 bar	Order-No. 2000 bar	Description	L mm	D mm	Connection thread D 1	d 1 VS	d 2 60°	d 3 45°
2201.04	2213.04	LD 01	26	10	M 7	1 x	---	6 x 45°
2202.04	2214.04	LD 02	26	10	M 7	1 x	2 x 60°	6 x 45°
2203.04	2215.04	LD 03	26	10	M 7	1 x	4 x 60°	6 x 45°
2204.05	2216.05	LD 04	26	12	M 8	1 x	---	6 x 45°
2205.05	2217.05	LD 05	26	12	M 8	1 x	2 x 60°	6 x 45°
2206.05	2218.05	LD 06	26	12	M 8	1 x	4 x 60°	6 x 45°
2207.14	2219.14	LD 07	30	14	1/8"	1 x	---	6 x 45°
2208.14	2220.14	LD 08	30	14	1/8"	1 x	2 x 60°	8 x 45°
2209.14	2221.14	LD 09	30	14	1/8"	1 x	4 x 60°	6 x 45°
2210.15	2222.15	LD 10	30	17	1/4"	1 x	---	6 x 45°
2211.15	2223.15	LD 11	30	17	1/4"	1 x	2 x 60°	8 x 45°
2212.15	2224.15	LD 12	30	17	1/4"	1 x	4 x 60°	6 x 45°

Used materials:

**1000 bar:
tempered
steel**

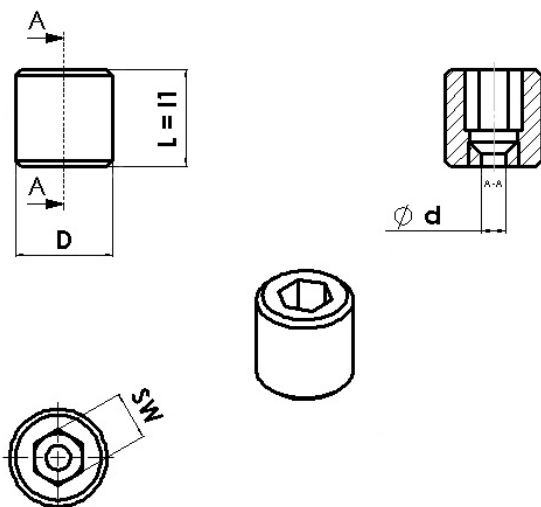
**2000 bar:
strain
hardening
stainless steel**

**Special tools according to customer's requirement are possible anytime!
All nozzles on this page are drilled.**



Brendle / Dübre

Screw-in Nozzles with sapphire max. 1000 bar



Suitable for water tools from : different producers

Order example:

Screw-in Nozzle with sapphire ED4 with drilling diameter $\varnothing$ 1,60 mm

1208.160

Order-No.	Description	L mm	Connection thread D	l 1 mm	Wrench size	$\varnothing$ Drill from - to (mm)
1205.xxx	ED1	4	M 4	4	hexagon socket	0,40 – 1,90
1206.xxx	ED2	6	M 6	6	hexagon socket	0,40 - 3,00
1207.xxx	ED3	8	M 8	8	hexagon socket	0,70 - 4,00

Screw-in Nozzles are also available in the version LG and NG with screwed-in M 6 insert (ED02). Only on request!

Order-No.	Description	L mm	Connection thread D	l 1 mm	Wrench size SW	$\varnothing$ Drill from - to (mm)
1208.xxx	ED4 (LG 22)	18,20	1/4"	8	14	0,30 – 3,00
1209.xxx	ED5 (NG 15)	15,30	1/4"	8	14	0,30 - 3,00

All nozzles are made of tempered steel.

Reference number:

Please use this
number in every
order !

The available drilling
diameters have the
reference number:

xxx :

**from
0,30 mm –
4,00 mm**

In steps of 0,1 mm

e.g.

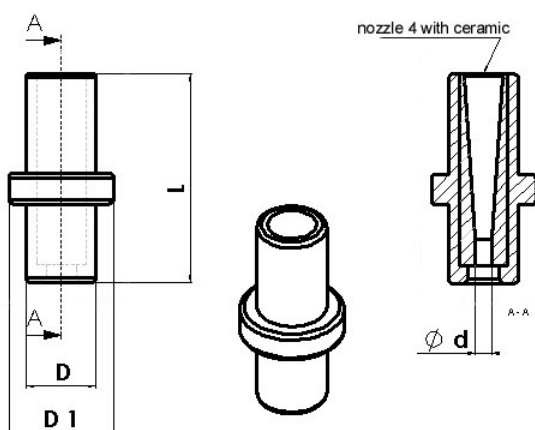
$\varnothing$ 1,20 mm = 120
 $\varnothing$ 0,40 mm = 040
etc



Brendle / Dübre

Round Jet Pistol Nozzles max. 1000 bar

- optimal utilization of the high pressure power from your pump equipment
- reduction of the wear in the pump and overflow valve area
- optimal power with lesser water and fuel consumption
- longer product life of the nozzles and in this way a reduction of expenses
- other forms in stock – such as e.g. a mouthpiece for pistols or inserts for water-cutting machines
- exact grinded ceramic pieces available



Suitable for water tools from:
Hammelmann, Kamat, URACA, WOMA

Order example:

Round Jet Pistol Nozzle D4 with drilling diameter Ø 1,80 mm
1602.180

Order-No.	Description	Ø D mm	Ø D 1 mm	L mm	Ø d mm	Working pressure in bar
1601.xxx	D1	8	14	24	0,40-4,00	max.1000
1602.xxx	D4	8	12	24	0,40-4,00	max.1000
1603	D4 Blind Nozzle	8	12	24	---	---

All Nozzles are made of stainless steel and with ceramic

Accessories

Order-No.	Description	used in
1600-01	O-Ring	D1,D4
1600-02	Backring	D1

Reference number:

Please use this number in every order !

The available drilling diameters have the reference number:
xxx :

from
0,40 mm –
4,00 mm

In steps of 0,1 mm

e.g.

Ø 1,20 mm = 120
Ø 0,40 mm = 040
etc



HP-Pipes (Lance Pipes) 2000 bar

According to standard in stock delivery lengths of:

- 400 mm
- 700 mm
- 800 mm
- 900 mm
- 1200 mm

The pipes have a sealing cone of 57 – 58°.

If wished with test and acceptance certificates.

All other lengths upon request also special tools.



Order-No.	Outside diameter AD mm	Inside diameter ID mm	Wall thickness WD mm	Connection thread	pressure max. bar
4601	6,35 (1/4")	2,30	2,03	UNF 1/4" LH	3100
4602	9,52 (3/8")	3,20	3,16	UNF 3/8" LH	3300
4603	9,52 (3/8")	1,60	3,96	UNF 3/8" LH	5500
4604	14,00	8,00	3,00	M 14 x1,5 LH	2300
4605	14,00	5,00	4,50	M 14 x1,5 LH	3100
4606	14,30 (9/16")	8,00	3,15	UNF 9/16" LH	2300
4607	14,30 (9/16")	4,76	4,77	UNF 9/16" LH	3300



HP-Pipes (Lance Pipes) 2000 bar

The HP-Pipes of Brendle are produced according to the remarked standard DIN 17458 execution Tab. 6/f.

They possess the massnorm according to DIN EN ISO 1127 and after test class 1 with the certification 3.1.B according to DIN EN 10204 are examined.

For all pipes we use the material 1.4301 or 1.4404.

The following maximum flow velocity (v) should not be exceeded:

for liquids: 7 m/sec.

for gases: 25 m/sec.

For return pipes in the part-relaxed condition of the medium the following limit values will be valid:

for liquids: 1,5 m/sec.

for gases: 6 m/sec.

For the calculation of the permissible flow rate (Q) in m³/h and the flow velocity (v) in m/sec. of the medium as well as the minimum nominal size of the high pressure pipings the equations are as follows:

$$\text{flow rate in m}^3/\text{h:} \quad Q = \frac{d(\text{inside})^2 \times v \times 2,8}{1000}$$

$$\text{flow velocity in m/sec.:} \quad v = \frac{Q \times 1000}{d(\text{inside})^2 \times 2,8}$$

$$\text{minimum nominal size in mm:} \quad d(\text{inside}) = \sqrt{\frac{Q \times 1000}{v \times 2,8}}$$



Cross Jet Nozzles M 5 1000 bar



Order example:

Cross Jet Nozzles KSD 1 1000 bar connection thread M 5
5001.27

Order- No.	Description	L mm	Connection thread D	l 1 mm	Wrench size SW	d 1 Fw	d 2 20°	d 3 45°
5001.27	KSD1	25,5	M 5	11,5	6	---	2 x 20°	4 x 45°
5002.27	KSD2	25,5	M 5	11,5	6	1 x	---	4 x 45°

Special tools according to customer`s requirement are possible anytime!

Hose Nozzle 1000 bar



The Hose Nozzle is suitable to press it into a STR-hose from type Polyflex.

Order example:

Hose Nozzle S-Nozzle 1 1000 bar with hose raffle
5101

Order- No.	Description	L mm	Connention thread D	l 1 mm	Wrench size SW	d 1 Fw	d 2 45°
5101	S-Nozzle 1	50	hose raffle	22,50	8	1x	4 x 45°

Special tools according to customer`s requirement are possible anytime!



Brendle / Dübre

Place for additions



Brendle / Dübre

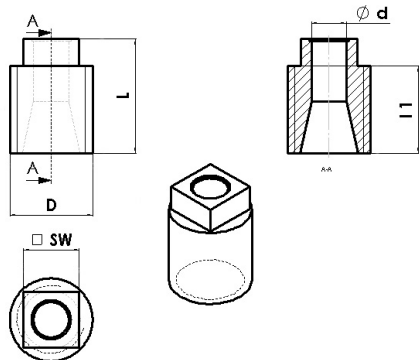
Place for additions



Brendle / Dübre

Screw-in Nozzles made of tempered steel M3 / M4 max. 1500 bar

These Screw-in Nozzles M3 / M4 should reduce the wear out of the nozzle and also the considerable sewer cleaning performance. Through the hydrodynamic tested form, these inserts have great advantages compared with the sapphire inserts. Screw-in Nozzles are suitable for all sorts of nozzles and can be used also for more than 1000 bar.



Suitable for water tools from : different producer

Order example:

Screw-in Nozzle ED10 with drilling diameter $\varnothing$ 0,60 mm

1211.060

Order-No.	Description	L mm	Connection thread D	l 1 mm	wrench size SW	$\varnothing$ d drilled from - to (mm)
1211.xxx	ED11	4,0	M 3	3,10	2,10	0,40 - 1,30
1210.xxx	ED10	5,5	M 4	4,20	2,70	0,40 - 1,60

All nozzles are made of tempered steel.

Wrenchs for M3 / M4 inserts



Order-No.	Description
3401	SM3
3402	SM4

Reference number:

Please use this
number in every
order !

The available drilling
diameters have the
reference number:
xxx :

from
0,40 mm –
1,60 mm

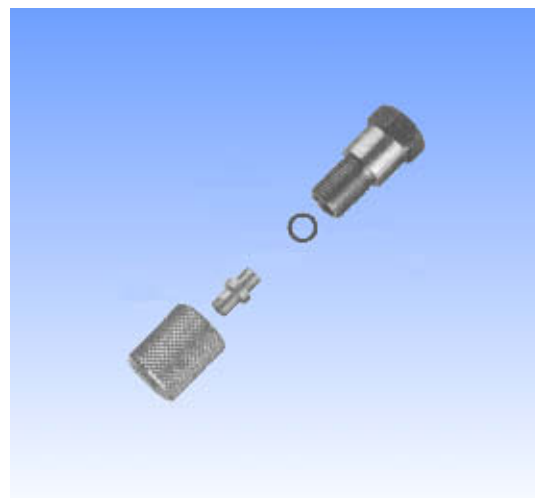
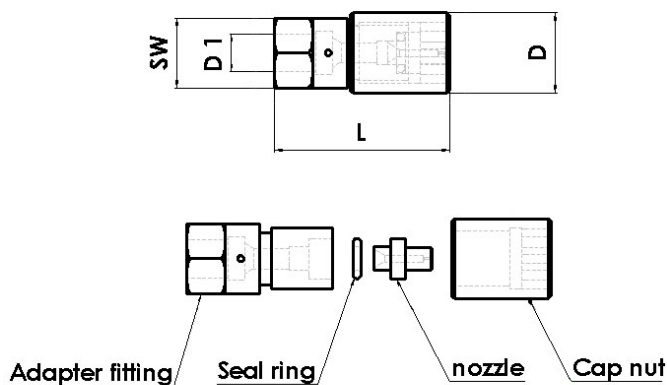
In steps of 0,1 mm

e.g.

$\varnothing$ 1,20 mm = 120
 $\varnothing$ 0,40 mm = 040
etc



Plug-in Systems 1000 bar



Description	L mm	D mm	Wrench size SW	connection thread D 1	Nozzle insert
Plug-in Systems	59	27,6	24	see below	Round Jet Pistol Nozzles please look at page 07

Order – No.	connection thread inside
4301	M 14 x 1,5LH
4302	3/8" BSPF
4303	3/8" NPTF
4304	1/2" BSPF
4305	1/2" NPTF

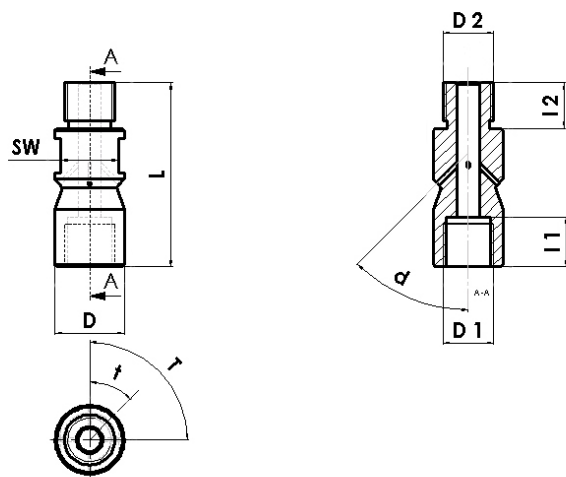
Replacement parts:

Description	Order – No.
Cap nut	4300-01
Seal ring	4300-02
Adapter fitting for M 14 x 1,5LH	4300-03
Adapter fitting for 3/8" BSPF	4300-04
Adapter fitting for 3/8" NPTF	4300-05
Adapter fitting for 1/2" BSPF	4300-06
Adapter fitting for 1/2" NPTF	4300-07



Brendle / Dübre

Thrust Nozzles drilled 1000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°

Order example:

Thrust Nozzle T 05 with connection thread 2 x IG 1/4"
2105.0.15.15

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	D mm	L mm	Wrench size SW	Connection thread D 1	Connection thread D 2	I 1	I 2	d
2101.0.14.14	T 01	13	40	10	IG 1/8"	AG 1/8"	10	10	4 x 45°
2102.0.14.14	T 02	16	40	11	IG 1/8"	AG 1/8"	10	10	4 x 45°
2103.0.15.15	T 03	18	45	11	IG 1/4"	AG 1/4"	13	13	4 x 45°
2104.0.14.14	T 04	16	40	11	IG 1/8"	IG 1/8"	10	10	4 x 45°
2105.0.15.15	T 05	18	45	11	IG 1/4"	IG 1/4"	13	13	4 x 45°
2106.0.14.14	T 06	16	40	11	AG 1/8"	AG 1/8"	10	10	4 x 45°
2107.0.15.15	T 07	18	45	11	AG 1/4"	AG 1/4"	13	13	4 x 45°

IG = Inside thread AG = Outside thread

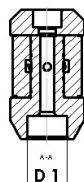
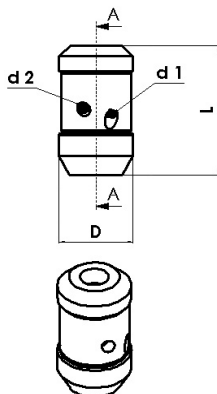
Special tools according to customer's requirement are possible anytime!



Brendle / Dübre

High Pressure Rotating Nozzles 1250 bar RTB

High-precision worked Rotating Nozzle – for pressure where normal Rotating Nozzles must give up..
Inclusive longer lifetime, lower leakage and higher efficiency.



The Rotating Nozzle RTB are available in the versions:
RTH, RTKH, RTKV, RTS, RTV with the according jet angle!

Order example:

Rotating Nozzle RTB 06 with M 4 Screw-in Nozzle and connection thread 1/4" in the version RTS
3080.2.15

For your orders please indicate pressure and performance in liters
of the used pump!

Order- No. RTH	Order- No. RTKH	Order- No. RTKV	Order- No. RTS	Order- No. RTV	Description	L mm	D mm	Nozzle inserts	Connection thread D 1
---	3058.0.04	3068.0.04	---	---	RTB 01	30	11	drilled	M 7
---	3059.0.14	3069.0.14	---	---	RTB 02	33	16	drilled	1/8"
---	3060.0.15	3070.0.15	---	---	RTB 03	33	16	drilled	1/4"
3051.0.14	3061.0.14	3071.0.14	3078.0.14	3085.0.14	RTB 04	50	22	drilled	1/8"
3052.0.15	3062.0.15	3072.0.15	3079.0.15	3086.0.15	RTB 05	50	22	drilled	1/4"
3053.2.15	3063.2.15	3073.2.15	3080.2.15	3087.2.15	RTB 06	60	28	M 4	1/4"
3054.2.15	3064.2.15	3074.2.15	3081.2.15	3088.2.15	RTB 07	62	35	M 4	1/4"
3055.2.17	3065.2.17	3075.2.17	3082.2.17	3089.2.17	RTB 08	62	35	M 4	1/2"
3056.3.09	3066.3.09	3076.3.09	3083.3.09	3090.3.09	RTB 09	83	40	M 6	M 24 x 1,5
3057.3.09	3067.3.09	3077.3.09	3084.3.09	3091.3.09	RTB 10	93	50	M 6	M 24 x 1,5

From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Special tools according to customer's requirement are possible anytime!

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Brendle GmbH, Lerchenstr.19+36, 72584 Hülben
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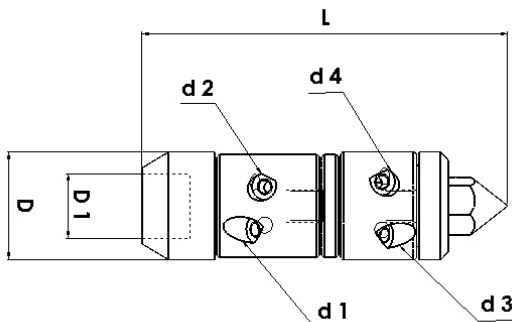


Brendle / Dübre

Double Rotating Nozzles DRD 1000 bar

Ideal range of application for the DRD-Rotating Nozzle is for heaviest deposits as well as for pipe bundles (e.g. power stations, refinery etc.).

The front rotating part removes the deposits which will be transported backwards through the back rotating part. This means a considerable reduction in cleaning times. For better insertion of the DRD-nozzle they have an insertion peak.



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Double Rotating Nozzle DRD 40 with M 6 ceramic inserts and connection thread M 24 x 1,5
3206.1.09

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1	d 2	d 3	d 4
3201.0.14	DRD 17	56	17	1/8"	drilled	2 x 85° backw.		2 x 85° forw.	
3202.0.15	DRD 17	56	17	1/4"	drilled	4 x 85° backw.		4 x 85° forw.	
3203.x.15	DRD 28	95	28	1/4"	M 4	2 x 40°	2 x 70°	2 x 40°	2 x 70°
3206.x.09	DRD 40	136	40	M 24 x 1,5	M 6	2 x 40°	2 x 70°	2 x 40°	2 x 70°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

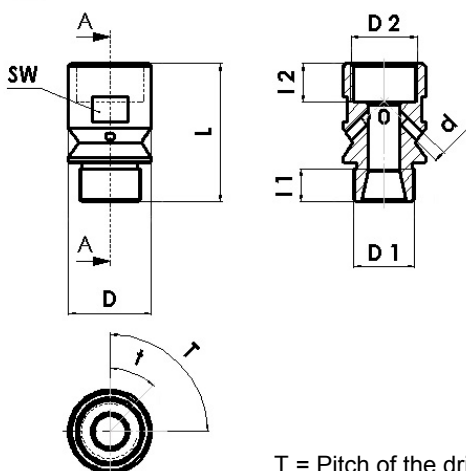
If desired the DRD-nozzle can be delivered without a insertion peak.

Special tools according to customer`s requirement are possible anytime!



Brendle / Dübre

Thrust Nozzles with inserts 1000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => $T / 2$

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°

Order example:

Thrust Nozzle T 04E with connection thread 2 x IG 1/4"

2111.2.15.15

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	D mm	L mm	Wrench size SW	Nozzle inserts	Connection thread D 1	Connection thread D 2	I 1	I 2	d
2108.2.14.14	T 01E	16	40	11	M 3	IG 1/8"	AG 1/8"	10	10	4 x 45°
2109.2.15.15	T 02E	18	45	11	M 3	IG 1/4"	AG 1/4"	13	13	4 x 45°
2110.2.14.14	T 03E	16	40	11	M 3	IG 1/8"	IG 1/8"	10	10	4 x 45°
2111.2.15.15	T 04E	18	45	11	M 3	IG 1/4"	IG 1/4"	13	13	4 x 45°
2112.2.14.14	T 05E	16	40	11	M 3	AG 1/8"	AG 1/8"	10	10	4 x 45°
2113.2.15.15	T 06E	18	45	11	M 3	AG 1/4"	AG 1/4"	13	13	4 x 45°
2114.2.08.09	T 07E	30	50	27	M 4	IG M22x1,5	AG M24x1,5	14	14	4 x 45°
2115.2.09.08	T 08E	30	50	27	M 4	IG M24x1,5	AG M22x1,5	14	14	4 x 45°
2116.2.08.08	T 09E	30	50	27	M 4	IG M22x1,5	AG M22x1,5	14	14	4 x 45°
2117.2.09.09	T 10E	30	50	27	M 4	IG M24x1,5	AG M24x1,5	14	14	4 x 45°
2118.2.08.08	T 11E	30	50	27	M 4	IG M22x1,5	IG M22x1,5	14	14	4 x 45°
2119.2.09.09	T 12E	30	50	27	M 4	AG M24x1,5	AG M24x1,5	14	14	4 x 45°

IG = Inside thread AG = Outside thread

Special tools according to customer's requirement are possible anytime!

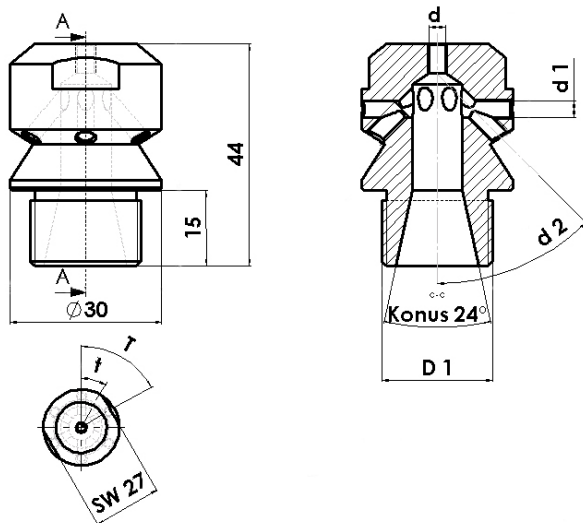
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E-Mail: info@brendle-gmbh.de

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Tel.: 07125/9699-0 Fax: 07125/9699-10



Brendle / Dübre

HDA-Nozzles 1000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°

Order example:

HDA-Nozzle HDA 01 with M 4 Screw-in Nozzle and connection thread M 24 x 1,5
1801.2.09

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	Nozzle inserts	Connection thread D 1	d VS	d 1 90°	d 2 45°
1801.x.xx	HDA 01	M 4	08 / 09	1 x	---	4 x 45°
1802.x.xx	HDA 02	M 4	08 / 09	1 x	---	6 x 45°
1803.x.xx	HDA 03	M 4	08 / 09	1 x	---	8 x 45°
1804.x.xx	HDA 04	M 4	08 / 09	1 x	4 x 90°	4 x 45°
1805.x.xx	HDA 05	M 4	08 / 09	1 x	6 x 90°	6 x 45°
1806.x.xx	HDA 06	M 4	08 / 09	1 x	8 x 90°	8 x 45°
1807.x.xx	HDA 07	M 4	08 / 09	1 x	---	10 x 45°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

The available connection threads D 1 have the reference number xx:

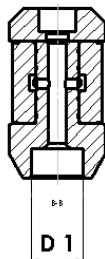
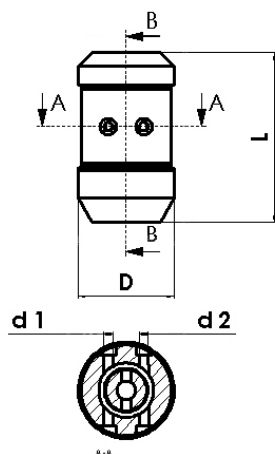
08 = M 22 x 1,5
09 = M 24 x 1,5

Special tools according to customer`s requirement are possible anytime!



Brendle / Dübre

High Pressure Rotating Nozzles 1000 bar RTS



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Rotating Nozzle RTS 03 with M 4 Screw-in Nozzle and connection thread 1/4"

3003.3.15

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1 85°	d 2 85°
3001.0.14	RTS 01	50	22	1/8"	drilled	2 x 85°	2 x 85°
3002.0.15	RTS 02	50	22	1/4"	drilled	2 x 85°	2 x 85°
3003.x.15	RTS 03	60	28	1/4"	M 4	2 x 85°	2 x 85°
3004.x.17	RTS 04	62	35	1/2"	M 4	2 x 85°	2 x 85°
3005.x.17	RTS 05	62	35	1/4"	M 4	2 x 85°	2 x 85°
3006.x.09	RTS 06	83	40	M 24 x 1,5	M 6	2 x 85°	2 x 85°
3007.x.09	RTS 07	93	50	M 24 x 1,5	M 6	2 x 85°	2 x 85°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

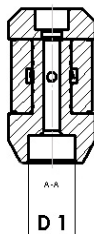
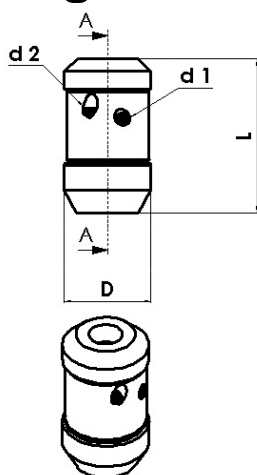
0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Special tools according to customer's requirement are possible anytime!



Brendle / Dübre

High Pressure Rotating Nozzles 1000 bar RTKV



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Rotating Nozzle RTKV 09 with M 6 ceramic inserts and connection thread M 24 x 1,5
3041.1.09

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1 40°	d 2 80°
3032.0.04	RTKV 01	30	11	M 7	drilled	2 x 40°	2 x 80°
3033.0.14	RTKV 02	33	16	1/8"	drilled	2 x 40°	2 x 80°
3034.0.15	RTKV 03	33	16	1/4"	drilled	2 x 40°	2 x 80°
3035.0.14	RTKV 04	50	22	1/8"	drilled	2 x 40°	2 x 80°
3036.0.15	RTKV 05	50	22	1/4"	drilled	2 x 40°	2 x 80°
3037.x.15	RTKV 06	60	28	1/4"	M 4	2 x 40°	2 x 80°
3038.x.15	RTKV 07	62	35	1/4"	M 4	2 x 40°	2 x 80°
3039.x.17	RTKV 08	62	35	1/2"	M 4	2 x 40°	2 x 80°
3040.x.09	RTKV 09	83	40	M 24 x 1,5	M 6	2 x 40°	2 x 80°
3041.x.09	RTKV 10	93	50	M 24 x 1,5	M 6	2 x 40°	2 x 80°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

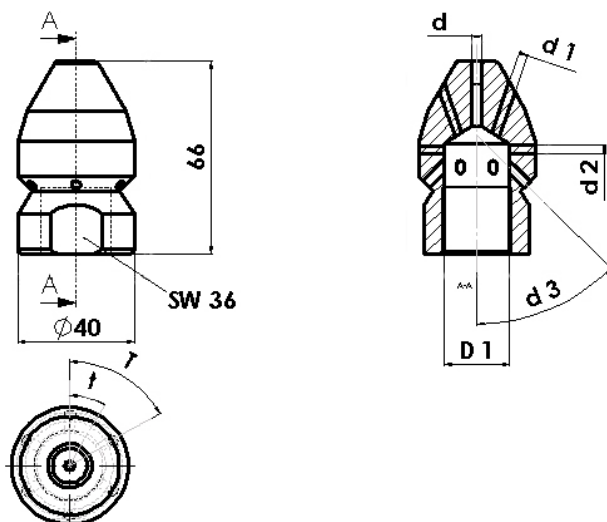
0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Special tools according to customer's requirement are possible anytime!



Brendle / Dübre

HDJ-Nozzles 1000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°



Order example:

HDJ-Nozzle HDJ 01 with M 4 Screw-in Nozzle and connection thread M 22 x 1,5
1853.2.08

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	Connection thread D 1	Nozzle inserts	d VS	d 1 30°	d 2 90°	d 3 45°
1851.x.xx	HDJ 03 A	08 / 09	M 4	1 x	---	---	4 x 45°
1852.x.xx	HDJ 04 A	08 / 09	M 4	1 x	---	---	6 x 45°
1853.x.xx	HDJ 05 A	08 / 09	M 4	1 x	---	---	8 x 45°
1854.x.xx	HDJ 06 A	08 / 09	M 4	1 x	---	---	10 x 45°
1855.x.xx	HDJ 07 B	08 / 09	M 4	1 x	---	3 x 90°	3 x 45°
1856.x.xx	HDJ 08 B	08 / 09	M 4	1 x	---	4 x 90°	4 x 45°
1857.x.xx	HDJ 09 B	08 / 09	M 4	1 x	---	5 x 90°	5 x 45°
1858.x.xx	HDJ 10 C	08 / 09	M 4	1 x	4 x 30°	---	4 x 45°
1859.x.xx	HDJ 11 C	08 / 09	M 4	1 x	5 x 30°	---	5 x 45°
1860.x.xx	HDJ 12 D	08 / 09	M 4	1 x	2 x 30°	2 x 90°	2 x 45°
1861.x.xx	HDJ 13 D	08 / 09	M 4	1 x	2 x 30°	4 x 90°	4 x 45°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

The available connection threads D 1 have the reference number xx:

08 = M 22 x 1,5
09 = M 24 x 1,5

Special tools according to customer's requirement are possible anytime!

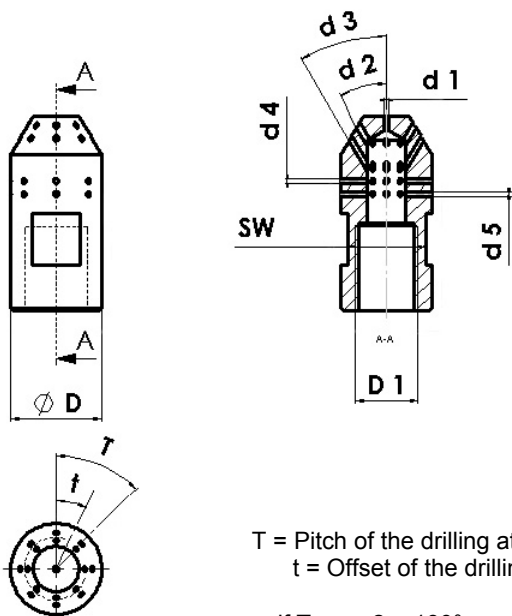
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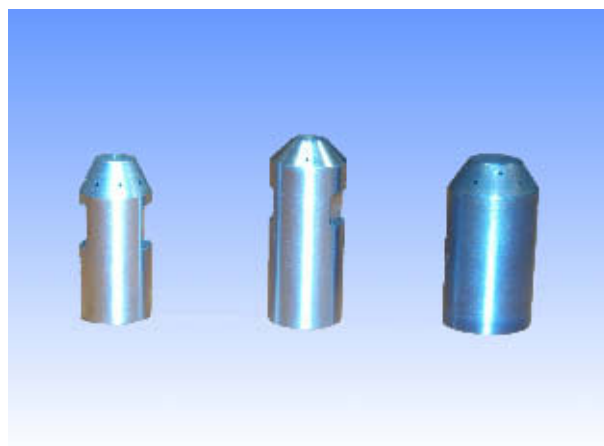
Brendle / Dübre

Front Nozzles without back jet 1000 bar



T = Pitch of the drilling at the perimeter
t = Offset of the drilling => T / 2

if T = 2 = 180° 6 = 60°
 3 = 120° 8 = 45°
 4 = 90° 10 = 36°
 5 = 72°



Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Order example:

Front Nozzle VD 04 drilled with connection thread 1/4"

1904.0.15

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Nozzle inserts	d 1 VS	d 2 30°	d 3 30°	d 4 90°	d 5 90°
1901.x.14	VD 01	40	15	10	1/8"	M 6	1 x	---	---	---	---
1902.x.15	VD 02	50	18	14	1/4"	M 6	1 x	---	---	---	---
1903.0.14	VD 03	28	14	10	1/8"	drilled	1 x	---	---	8 x 90°	8 x 90°
1904.0.15	VD 04	28	18	14	1/4"	drilled	1 x	---	---	8 x 90°	8 x 90°
1905.0.14	VD 05	29	14	10	1/8"	drilled	1 x	8 x 30°	---	---	---
1906.0.14	VD 06	29	14	10	1/8"	drilled	1 x	8 x 30°	8 x 30°	---	---
1907.0.15	VD 07	35	18	14	1/4"	drilled	1 x	8 x 30°	---	---	---
1908.0.15	VD 08	35	18	14	1/4"	drilled	1 x	8 x 30°	8 x 30°	---	---

Special tools according to customer's requirement are possible anytime!

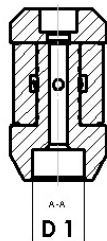
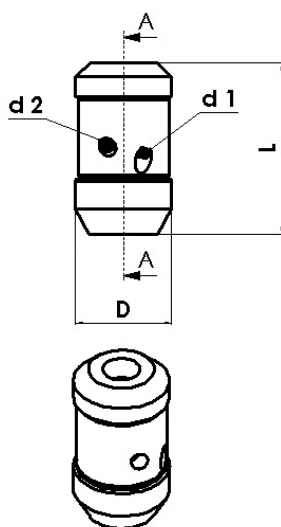
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Brendle GmbH, Lerchenstr.19+36, 72584 Hülben
Tel.: 07125/9699-0 Fax: 07125/9699-10



Brendle / Dübre

High Pressure Rotating Nozzles 1000 bar RTKH



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Rotating Nozzle RTKH 06 with M 4 Screw-in Nozzle and connection thread 1/4"

3027.2.15

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1 40°	d 2 80°
3022.0.04	RTKH 01	30	11	M 7	drilled	2 x 40°	2 x 80°
3023.0.14	RTKH 02	33	16	1/8"	drilled	2 x 40°	2 x 80°
3024.0.15	RTKH 03	33	16	1/4"	drilled	2 x 40°	2 x 80°
3025.0.14	RTKH 04	50	22	1/8"	drilled	2 x 40°	2 x 80°
3026.0.15	RTKH 05	50	22	1/4"	drilled	2 x 40°	2 x 80°
3027.x.15	RTKH 06	60	28	1/4"	M 4	2 x 40°	2 x 80°
3028.x.15	RTKH 07	62	35	1/4"	M 4	2 x 40°	2 x 80°
3029.x.17	RTKH 08	62	35	1/2"	M 4	2 x 40°	2 x 80°
3030.x.09	RTKH 09	83	40	M 24 x 1,5	M 6	2 x 40°	2 x 80°
3031.x.09	RTKH 10	93	50	M 24 x 1,5	M 6	2 x 40°	2 x 80°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Special tools according to customer's requirement are possible anytime!

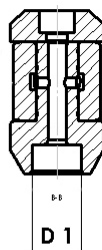
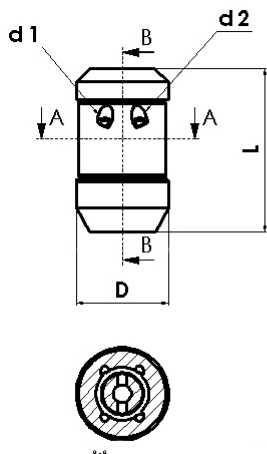
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Brendle / Dübre

High Pressure Rotating Nozzles 1000 bar RTV



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	30	46	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Rotating Nozzle RTV 05 with M 6 ceramic inserts and connection thread M 24 x 1,5

3020.1.09

For your orders please indicate pressure and performance in liters of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1 40°	d 2 40°
3015.0.14	RTV 01	50	22	1/8"	drilled	2 x 40°	2 x 40°
3016.0.15	RTV 02	50	22	1/4"	drilled	2 x 40°	2 x 40°
3017.x.15	RTV 03	60	28	1/4"	M 4	2 x 40°	2 x 40°
3018.x.15	RTV 04	62	35	1/4"	M 4	2 x 40°	2 x 40°
3019.x.17	RTV 05	62	35	1/2"	M 4	2 x 40°	2 x 40°
3020.x.09	RTV 06	83	40	M 24 x 1,5	M 6	2 x 40°	2 x 40°
3021.x.09	RTV 07	93	50	M 24 x 1,5	M 6	2 x 40°	2 x 40°

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

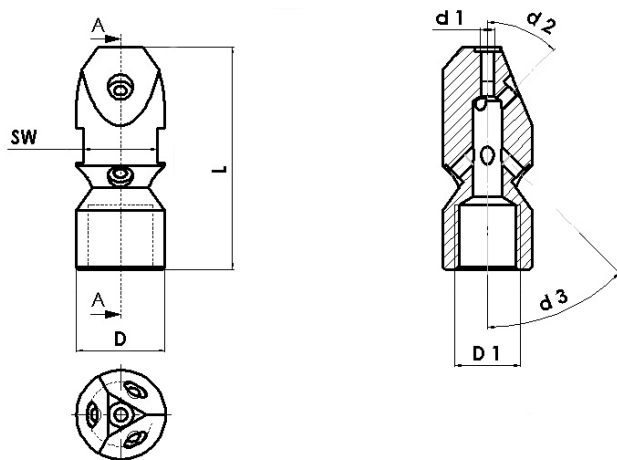
0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Special tools according to customer's requirement are possible anytime!



Brendle / Dübre

Quattro Nozzles 1000 bar



Order example:

Quattro Nozzle with M 4 Screw-in Nozzle and connection thread M 24 x 1,5

2005.2.09

For your orders please indicate pressure and performance in liters of the used pump!

Reference number:

Please use this number in every order !

The available nozzle inserts have the reference number x:

- 0 = none
- 1 = ceramic
- 2 = tempered steel
- 3 = sapphire

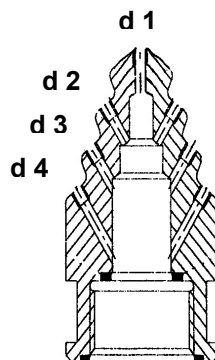
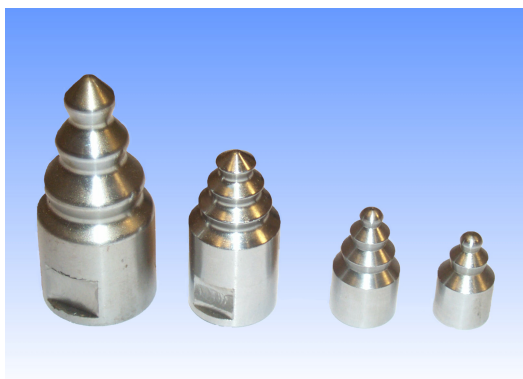
Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Nozzle inserts	d 1 VS	d 2 45°	d 3 35°
2001.2.14	QD 01	45	17	15	1/8"	M 3	1 x	3 x 45°	4 x 45°
2002.2.15	QD 02	45	18	15	1/4"	M 3	1 x	3 x 45°	4 x 45°
2003.x.16	QD 03	45	30	27	3/8"	M 4	1 x	3 x 45°	4 x 45°
2004.x.08	QD 04	60	30	---	M 22 x 1,5	M 4	1 x	3 x 45°	4 x 45°
2005.x.09	QD 05	60	30	---	M 24 x 1,5	M 4	1 x	3 x 45°	4 x 45°

Special tools according to customer`s requirement are possible anytime!

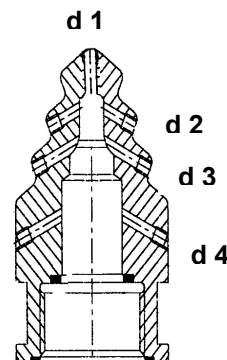


Brendle / Dübre

Pyramid Nozzles 1000 bar



Nozzle jets
forward



Nozzle jets
backward

Order example:

Pyramid Nozzle forward with M 3 Screw-in Nozzle and connection thread M 24 x 1,5

4706.2.09

For your orders please indicate pressure and performance in liters of the used pump!

Forward jets

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Nozzle inserts	d 1 35°	d 2 35°	d 3 55°	d 4 55°
4701.0.14	PDV 01	35	17	11	1/8"	drilled	1x	2x35°	2x55°	2x55°
4702.0.15	PDV 02	42	22	19	1/4"	drilled	1x	2x35°	2x55°	2x55°
4703.0.16	PDV 03	56	28	24	3/8"	drilled	1x	2x35°	2x55°	2x55°
4704.2.17	PDV 04	67	35	31	1/2"	M 3	1x	2x35°	2x55°	2x55°
4705.2.08	PDV 05	72	42	36	M 22x1,5	M 3	1x	2x35°	2x55°	2x55°
4706.2.09	PDV 06	72	42	36	M 24x1,5	M 3	1x	2x35°	2x55°	2x55°

Backward jets

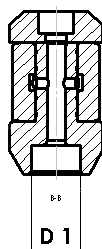
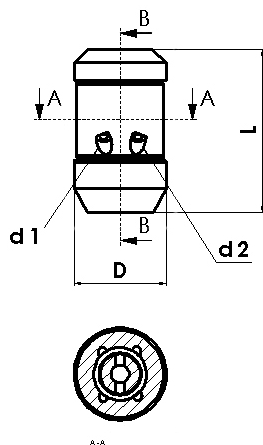
Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Nozzle inserts	d 1 35°	d 2 35°	d 3 55°	d 4 55°
4751.0.14	PDH 01	35	17	11	1/8"	drilled	1x	2x35°	2x55°	2x55°
4752.0.15	PDH 02	42	22	19	1/4"	drilled	1x	2x35°	2x55°	2x55°
4753.0.16	PDH 03	56	28	24	3/8"	drilled	1x	2x35°	2x55°	2x55°
4754.2.17	PDH 04	67	35	31	1/2"	M 3	1x	2x35°	2x55°	2x55°
4755.2.08	PDH 05	72	42	36	M 22x1,5	M 3	1x	2x35°	2x55°	2x55°
4756.2.09	PDH 06	72	42	36	M 24x1,5	M 3	1x	2x35°	2x55°	2x55°

Special tools according to customer's requirement are possible anytime!



Brendle / Dübre

High Pressure Rotating Nozzles 1000 bar RTH



From D = 40 mm the Rotating Nozzle will have an adapter.
1 x 24° cone / 1 x flat sealed.

Order- No.	Description	L mm	D mm	Wrench size SW	Connection thread D 1	Connection thread D 2	Thread length l 1 mm	Thread length l 2 mm	Ø drill hole d mm
3000.01	Adapter	46	30	27	M 24 x 1,5	M 24 x 1,5	16	21	11

Order example:

Rotating Nozzle RTH 04 with M 4 Screw-in Nozzle and connection thread 1/4"
3010.2.15

For your orders please indicate pressure and performance in liters
of the used pump!

Order- No.	Description	L mm	D mm	Connection thread D 1	Nozzle inserts	d 1 40°	d 2 40°
3008.0.14	RTH 01	50	22	1/8"	drilled	2 x 40°	2 x 40°
3009.0.15	RTH 02	50	22	1/4"	drilled	2 x 40°	2 x 40°
3010.x.15	RTH 03	60	28	1/4"	M 4	2 x 40°	2 x 40°
3011.x.15	RTH 04	62	35	1/4"	M 4	2 x 40°	2 x 40°
3012.x.17	RTH 05	62	35	1/2"	M 4	2 x 40°	2 x 40°
3013.x.09	RTH 06	83	40	M 24 x 1,5	M 6	2 x 40°	2 x 40°
3014.x.09	RTH 07	93	50	M 24 x 1,5	M 6	2 x 40°	2 x 40°

Reference

number:

Please use this number
in every order !

The available nozzle
inserts have the
reference number x:

0 = none
1 = ceramic
2 = tempered steel
3 = sapphire

Special tools according to customer`s requirement are possible anytime!