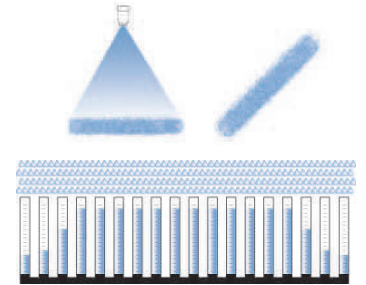
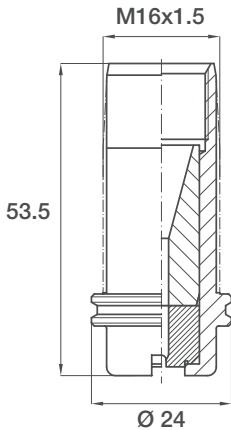


**HIGH IMPACT NOZZLE TIPS, MINI-SIZED**

The internal profile leading to the outlet has been completely redesigned: all the sharp variations of the flow passage section have been eliminated to reduce to a minimum the losses for turbulence and to get the maximum exit speed. This special design, with the flow stabilizer already mounted on the tip, allows to obtain excellent results.



**MATERIALS**

<b>B1</b>	Body	Stainless steel AISI 303
<b>C1</b>	Insert	Stainless steel AISI 420 hardened
<b>F1</b>	Insert	Tungsten carbide

**HOW TO ORDER PNR PRODUCTS**

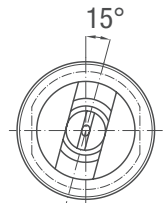
Model	Angle	Capacity	Material
<b>HW/AB</b>	<b>C</b>	<b>2045</b>	<b>XX</b>

Order example: **HWC 2045 F1AB**

**SPRAY ANGLE CODES**

HWC	HWE	HWF	HWL
22°	26°	30°	40°

**OFFSET ANGLE**



**ALIGNMENT NOZZLES**

The HWZ 01Ax B1 blind nozzle tip allows to position the nipples onto the manifold very precisely during the welding phase through a bar which keeps the millings in line.

**CONVERSION TABLE (UE - USA)**

**PRESSURE: 1 bar = 14,5 psi    CAPACITY: 1 lpm = 0,264 gpm**

See list of abbreviations - legenda at page 3.

Code	D	D1	Capacity - lpm									
			Pressure - bar									
			80	100	140	200	240	280	300	340	380	400
2045 xxAB	0.7	0.6	4.5	5	5.9	7.2	7.8	8.5	8.7	9.3	9.8	10
2063 xxAB	1	0.8	6.3	7	8.3	10	10.9	11.8	12.2	13	13.7	14.1
2106 xxAB	1.5	1.2	10.6	11.9	14.2	16.8	18.4	19.8	20.5	21.8	23.1	23.7
2134 xxAB	1.8	1.4	13.4	15.0	17.7	21.2	23.2	25.0	25.9	27.6	29.2	29.9
2162 xxAB	2.0	1.5	16.2	18.1	21.4	25.6	28.0	30.3	31.4	33.4	35.3	36.2
2208 xxAB	2.1	1.8	20.8	23.3	27.5	32.9	36.0	38.9	40.2	42.9	45.3	46.5
2250 xxAB	2.5	1.9	25.0	28.0	33.0	39.5	43.3	46.8	48.4	51.6	54.5	55.9
2320 xxAB	2.8	2.4	32.0	35.8	42.3	50.6	55.4	59.9	62.0	66.0	69.7	71.6
2402 xxAB	3.0	2.5	40.2	45.0	53.2	63.6	69.6	75.2	77.8	82.9	87.6	89.9
2520 xxAB	3.5	2.7	52.0	58.1	68.8	82.2	90.0	97.3	100.7	107.2	113.3	116.3
2642 xxAB	3.8	3.2	64.2	71.8	84.9	101.5	111.2	120.1	124.3	132.3	140.0	143.6
2798 xxAB	4.3	3.6	79.8	89.2	105.6	126.0	138.2	149.3	154.5	164.5	174.0	178.4
2996 xxAB	4.7	4.0	99.6	111.3	131.8	157.5	172.5	186.3	192.8	205.3	217.0	222.7
3112 xxAB	5.0	4.2	112.0	125.2	148.2	177.0	194.0	209.5	216.9	231.0	244.0	250.4
3120 xxAB	5.2	4.4	120.0	134.2	158.7	189.7	207.8	224.5	232.4	247.4	261.5	268.3

**DISASSEMBLY TOOL FOR NOZZLE TIPS**

Because of the strong tightening, the extraction of the tip from a nipple is not always easy and may cause damage to either parts. The disassembly kit HWZ 05A0 B1 allows a safe grip on the nozzle and makes it easier to apply the tensile force required for its extraction. The kit, clamping tip and handle, is sold separately.

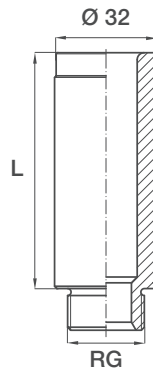


ZWA

**WELDING NIPPLES**

The HW nozzles can be assembled on a series of nipples with same inlet and three different lengths.

The nipple inlet profile, machined with high precision, allows a precise and easy positioning of the nozzle at the normally used offset angle value of 15° from the main manifold axis.



**MATERIALS**

**B2** Stainless steel AISI 304

Code	RG inch	L mm	Weight kg
ZWA 0032 B2	3/4	32	0.08
ZWA 0039 B2	3/4	39	0.10
ZWA 0080 B2	3/4	80	0.23



XHW

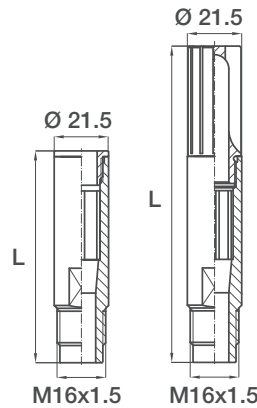
**FLOW STABILIZER**

Highly important in a descaling process as it reduces the losses due to flow internal turbulence and allows to use a higher percentage of the liquid vein energy for a stronger impact on the sheet surface.

It's made of a cylindrical body in brass, accurately finished, containing a flow stabilizer with tabs in stainless steel to stabilize the liquid path.

Available in three different lengths, all suitable to house a filter.

All below listed items contain a flow stabilizer with tabs ZHW AL00 B3



**MATERIALS**

<b>T1</b>	Body	Brass
<b>T1</b>	Filter	Brass
<b>B3</b>	Flow Stabilizer	Stainless steel AISI 316

Code	L mm	Weight kg	Notes
XHW DG 10 T1	76	0.08	without filter
XHW DG 11 T1	96	0.10	without filter
XHW DG 20 T1	110	0.11	with filter
XHW DG 21 T1	130	0.14	with filter
XHW DG 22 T1	150	0.16	with filter



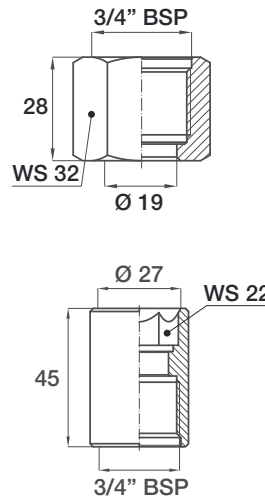
VAW A075 B1

VAW C075 B1

**LOCKNUTS**

The VAW A075 B1 and VAW D100 B1 locknuts for the ZWB series nozzle tips encompass our long experience in this sector.

Their robust design and generous dimensions offer the maximum protection to the tip and to the nipple thread.



**MATERIALS**

**B1** Stainless steel AISI 303

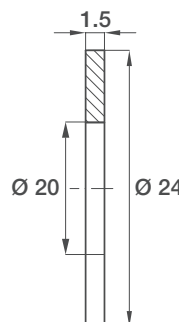
Code	Notes
VAW A075 B1	with hexagon on the outside
VAW C075 B1	with built in hexagon



VDA 20C1 T3

**GASKET**

The VDA 20C1 T3 gasket ensures a tight fitting between nozzle and nipple. They can be mounted on all ZWB mini nipples.



**MATERIALS**

**T3** Copper

<b>Code</b>
VDA 20C1 T3