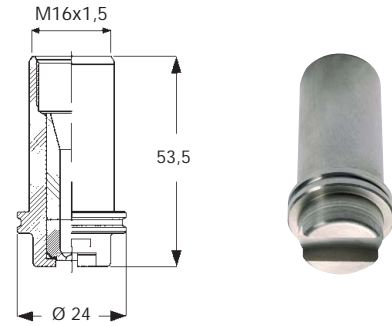


ROLLING MILL

HW / AB

DESCALING TIPS / BROACH FIT, MINI, LONG

Small size nozzle tips also feature a new inside profile completely redesigned in order to keep turbulent losses as low as possible: all sharp cross section changes have been eliminated with the result of is significantly higher water velocity at the orifice.  
 The performances are further enhanced by a flow stabilizer, abating turbulence inducted by the sharp change of flow direction when the water flow leaves the main manifold to enter the nipple.  
 Finally a filter can be mounted at the nipple inlet, to avoid nozzle orifice to be clogged / damaged by foreign particles.



Materials Body B1 AISI 303 Stainless Steel  
 Tip C1 AISI 420 hardened  
 F1 Tungsten Carbide

Tip Code	D mm	D1 mm	Capacity at different pressure values (lpm) (bar)									
			80	90	100	120	140	160	180	200		
• • • 2106 xx AB	1.5	1.2	10.6	11.4	12.0	13.1	14.2	15.2	16.1	17.0		
• • • 2134 xx AB	1.8	1.4	13.4	14.2	15.0	16.4	17.7	19.0	20.1	21.2		
• • • 2162 xx AB	2.0	1.5	16.2	17.1	18.0	19.5	21.3	22.8	24.0	25.0		
• • • 2208 xx AB	2.1	1.8	20.8	21.8	23.0	25.2	27.2	29.1	30.8	35.5		
• • • 2250 xx AB	2.5	1.9	25.0	26.5	28.0	31.0	33.0	35.4	37.5	39.0		
• • • 2320 xx AB	2.8	2.4	32.0	34.2	36.0	39.4	42.6	45.5	48.3	50.9		
• • • 2402 xx AB	3.0	2.5	40.2	42.7	45.0	49.0	53.0	57.0	60.0	63.0		
• • • 2520 xx AB	3.5	2.7	52.0	55.0	58.0	63.5	68.6	73.3	77.8	82.0		
• • • 2642 xx AB	3.8	3.2	64.2	68.3	72.0	78.0	85.0	91.0	96.0	101		
• • • 2798 xx AB	4.3	3.6	79.8	84.4	89.0	98.0	105	112	119	126		
• • • 2996 xx AB	4.7	4.0	99.6	106	112	122	132	141	150	158		
• • • 3112 xx AB	5.0	4.2	112	119	125	137	148	158	168	177		
• • • 3120 xx AB	5.2	4.4	120	127	134	147	158	169	180	189		

CODE	ANGLE
HWE	26°
HWF	30°
HWL	40°

COMPLETE CODE  
 Codes including the several options available as follows.

Tip Code	Assembly
HWX 1234 XX AB	bare nozzle
HWX 1234 XX BB	nozzle with flow stabilizer L= 76
HWX 1234 XX CB	nozzle with flow stabilizer L= 96
HWX 1234 XX DB	nozzle with filter & flow stabilizer L = 110
HWX 1234 XX EB	nozzle with filter & flow stabilizer L = 130
HWX 1234 XX GB	nozzle with filter & flow stabilizer L = 150

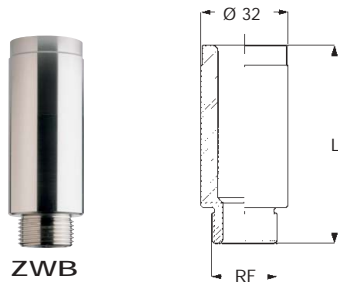
ALIGNMENT NOZZLE  
 Alignment nozzle HWZ 01Ax B1 allows for fast and safe positioning of the nipples onto the manifold prior to welding.  
 Please ask for Data Sheet TFTI HWACC3 to identify the precise part you need since nozzles with different offset angles are available.  
 The nipples are aligned in place by means of a straight rod and welded to assure the right jet direction.

DISASSEMBLING TOOL  
 The disassembling tool makes it easier to extract a nozzle from inside the nipple, for replacement or inspection.  
 The clamping tip (HWZ 03C0 B1) and the handle (HWZ 04A0 B1) are sold and must be ordered separately.



## ROLLING MILL

## ASSEMBLY PARTS / MINI, LONG



ZWB

## WELDING NIPPLES

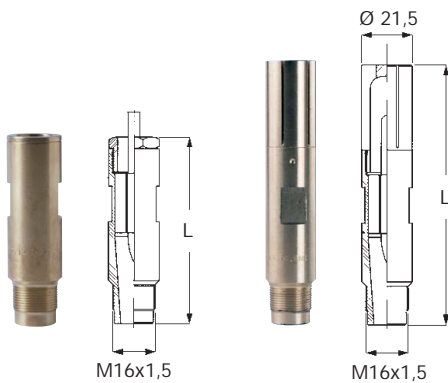
Small size nozzles can be assembled on a three different nipples, with the same inlet and three different lengths.

The precision machined nipple inlet port assures precise positioning of the nozzle flat jet to the specified offset angle value of 15° with regard to the manifold center line.

This makes it possible to obtain uniform impact distribution and better descaling results.

Material B2 AISI 304 Stainless steel

Tip Code	RF inch	L mm	W kg
ZWB 0032 B2	3/4	32	0,08
ZWB 0039 B2	3/4	39	0,10
ZWB 0080 B2	3/4	80	0,23



M16x1,5

M16x1,5

## FLOW STABILIZER

The flow stabilizer is the critical component for a perfect descaling job, since it maximizes the impact force on the surface to be descaled, for any given condition.

The codes beside always include the multifin flow improver (XHW DL00 B3).

Materials Nozzle inlet T1 Brass  
Filter T1 Brass  
Flow stabilizer B3 AISI 316 Stainless steel

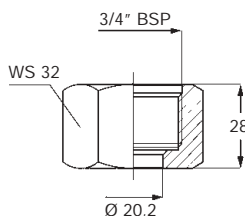
Tip Code	L mm	Weight kg	Notes
XHW DG 10 T1	76	0.08	without filter
XHW DG 11 T1	96	0.10	without filter
XHW DG 20 T1	110	0.11	with filter
XHW DG 21 T1	130	0.14	with filter
XHW DG 22 T1	150	0.16	with filter



XHW DL00 B3



VAW A075 B1



## LOCKNUT

The locknut for ZWB series descaling nipples has been designed profiting from a long experience on the field.

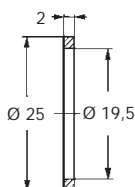
The sturdy design and the generous dimensions give the maximum protection to the nozzle and the nipple thread, so as to avoid such abrasion wear who often occur in the rolling mill.

One locknut size fits all the ZWB series nipples, for any length.

Material B1 AISI 303 Stainless steel



VDA 20C1 T3



## SEAL

The round seal provides proper assembly between nozzle and nipple. One size fits all small size nipple types.

Material T3 Copper