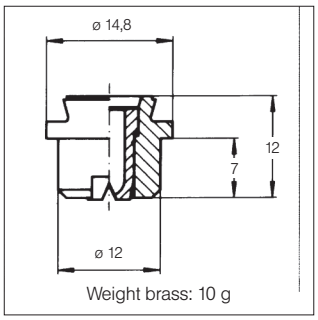
FLAT FAN DOVETAIL NOZZLES

The 660 series nozzles come with the conventional, automatic self aligning dovetail connection which ensures that every nozzle will always be installed under the correct spray offset angle towards the roll center line.

The small tip dimensions make this nozzle series ideal for roll cooling and strip cooling headers when space is limited especially in small rolling mills for non ferrous metals.

All tips have an automatically built in 5° offset angle if the welding nipple is welded in line with the centre line of the spray header. Any other offset angle has to be compensated for by welding the nipple under a different angle (minus the 5° inbuilt offset angle).

The spray has a parabolic liquid distribution which is ideal for a multi nozzle header arrangement.



Weight brass: 10 g

Spray width [B] at p=3 bar

B \ H	H 250 mm	H 500 mm
600. 301 - 331	70	125
600. 361 - 761	90	175
600. 801 - 881	100	200
600. 302 - 332	110	210
600. 362 - 402	135	260
600. 442 - 882	150	300
660. 303 - 333	175	350
660. 363 - 403	200	400
660. 443 - 923	220	440
660. 304 - 334	250	470
660. 364 - 404	315	600
660. 444 - 924	330	630

Ordering no. Type ∢ 20°	∢ 30°	∢ 45°	∢ 60°	Mat. no. 16 303 SS	17 316 SS	30 Brass	E Ø [mm]	V̇ [l/min] p [bar] 0,5	1,0	2,0	40* psi	3,0	5,0	7,0	10,0
660. 301	660. 302	660. 303	660. 304	○	-	○	0,4 - 0,6	0,16	0,23	0,32	0,10	0,39	0,50	0,59	0,71
660. 331	660. 332	660. 333	660. 334	○	-	○	0,5 - 0,7	0,22	0,32	0,45	0,14	0,55	0,71	0,84	1,00
660. 361	660. 362	660. 363	660. 364	○	○	○	0,6 - 0,8	0,31	0,44	0,63	0,20	0,77	0,99	1,17	1,40
660. 401	660. 402	660. 403	660. 404	○	○	○	0,8 - 1,0	0,50	0,70	1,00	0,31	1,22	1,58	1,87	2,23
660. 441	660. 442	660. 443	660. 444	○	○	○	0,9 - 1,1	0,62	0,88	1,25	0,39	1,53	1,97	2,33	2,79
660. 481	660. 482	660. 483	660. 484	○	○	○	1,0 - 1,2	0,80	1,13	1,60	0,50	1,96	2,53	2,99	3,57
660. 511	660. 512	660. 513	660. 514	○	○	○	1,1 - 1,4	0,95	1,34	1,90	0,59	2,32	3,00	3,55	4,24
660. 561	660. 562	660. 563	660. 564	○	○	○	1,3 - 1,5	1,25	1,76	2,50	0,78	3,06	3,95	4,67	5,59
660. 601	660. 602	660. 603	660. 604	○	○	○	1,5 - 1,7	1,57	2,22	3,15	0,98	3,85	4,98	5,89	7,04
660. 641	660. 642	660. 643	660. 644	○	○	○	1,6 - 1,9	2,00	2,82	4,00	1,24	4,89	6,32	7,48	8,94
660. 671	660. 672	660. 673	660. 674	○	○	○	1,8 - 2,2	2,37	3,35	4,75	1,47	5,81	7,51	8,88	10,62
660. 721	660. 722	660. 723	660. 724	○	○	○	2,1 - 2,5	3,15	4,45	6,30	1,95	7,71	9,96	11,78	14,08
660. 761	660. 762	660. 763	660. 764	○	○	○	2,3 - 2,8	4,00	5,65	8,00	2,48	9,79	12,64	14,96	17,88
660. 801	660. 802	660. 803	660. 804	○	○	○	2,6 - 3,2	5,00	7,07	10,00	3,10	12,24	15,81	18,70	22,36
660. 841	660. 842	660. 843	660. 844	○	○	○	3,0 - 3,6	6,25	8,83	12,50	3,88	15,30	19,76	23,38	27,95
660. 881	660. 882	660. 883	660. 884	○	○	○	3,4 - 4,0	8,00	11,31	16,00	4,96	19,53	25,29	29,93	35,77
-	-	660. 923	660. 924	○	○	○	4,1 - 4,4	10,00	14,14	20,00	6,21	24,49	31,26	37,42	44,72

E = Narrowest free cross section. * US gal/min

Subject to technical modifications

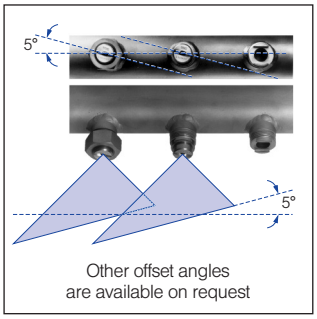
Example for Ordering: Type **660. 301** + Material-no. **17** = Ordering no. **660. 301. 17**

Conversional formula for the above series: $\dot{V}_2 = \dot{V}_1 * \sqrt{\frac{p_2}{p_1}}$

Accessories

Welding nipple

Retaining nut



Other offset angles are available on request

Technical data and ordering data for accessories see page 13.