








## MAIN CHARACTERISTICS OF CARRARO DSH EQUIPMENTS

DSH TYPE 		DF VARI <i>fix</i>	DM VARI <i>spring</i>	DS VARI <i>flow</i>	MDM VARI <i>bull</i>	DV VARI <i>vent</i>	DY VARI <i>spray</i>
							
<b>TYPE OF NOZZLE</b>		FIXED AREA VORTEX TYPE	VARIABLE AREA SPRING ASSISTED	VARIABLE AREA MULTINOZZLE ACTUATOR ASSISTED	VARIABLE AREA SPRING ASSISTED	FIXED AREA VORTEX VENTURI TYPE	FIXED AREA MULTIPLE SWIRLING NOZZLES
<b>RANGEABILITY</b> (G <sub>st</sub> max/G <sub>st</sub> min)		4 ÷ 5 : 1	15 ÷ 25 : 1 (note 2)	up to 50 : 1 (note 1)	15 ÷ 25 : 1	6 ÷ 7 : 1	up to 15 : 1
<b>MIN APPROACH TEMPERATURE</b>		7°C	7°C	7°C	7 °C	5°C	6°C
<b>MAX Δp</b> WATER-TO-STEAM		30 bar	25 bar	60 bar (note 2)	25 bar	30 bar	30 bar
<b>MIN Δp</b> WATER-TO-STEAM		1,5 bar	3 ÷ 6 bar (note 4)	1 ÷ 2 bar (note 3)	3 ÷ 6 bar (note 3)	0,5 bar	3 bar
<b>ANSI PRESSURE CLASS</b>		Up to ANSI 2500	Up to ANSI 2500	Up to ANSI 2500	Up to ANSI 2500	Up to ANSI 2500	Up to ANSI 600
<b>STEAM PIPING SIZE</b>	MIN	4"	4"	6" (note 4)	8"	3"	1-1/2"
	MAX	40"	40"	24" (note 5)	40"	20 "	4"
<b>MOUNTING CONNECTION</b>		2" ÷ 4"	2" ÷ 8"	3" or 4"	--	--	--
<b>WATER CONNECTION</b>		1" or 1½"	1" ÷ 3"	1" ÷ 3"	1" ÷ 6"	½" ÷ 2"	½" ÷ 1"
<b>CONNECTION TYPES</b>		RF - RJ	RF - RJ	RF - RJ - BW	RF - BW	BW - RF - wafer	SW - BW RF - wafer
<b>MAX WATER % VS INLET STEAM</b> (by weight)		15%	20% ÷ 25% (note 7)	20% ÷ 25%	25% ÷ 35% (note 7)	20%	15%
<b>MIN STEAM INLET VELOCITY</b>		8 m/s	10 m/s	8 ÷ 10 m/s	10 m/s	4 m/s	6 m/s
<b>MIN DOWNSTREAM STRAIGHT RUN</b> (note 6)		4m or 5DN	5m or 6DN	4m or 5DN	5m or 6DN	4m or 15DN	3m or 20DN
<b>DISTANCE TO TEMPERATURE SENSOR</b>		10 ÷ 15 m	10 ÷ 20 m	10 ÷ 20 m	10 ÷ 20 m	5 ÷ 7 m	8 ÷ 10 m
<b>NOZZLE CV</b> (water)		0.018 ÷ 5 (note 8)	1 ÷ 15 (note 8)	0,1 ÷ 21	1 ÷ 150	0.02 ÷ 7	0.02 ÷ 0,9
<b>MAX WATER FLOWRATE</b>		25 m <sup>3</sup> /h	65 m <sup>3</sup> /h	50 m <sup>3</sup> /h	350 m <sup>3</sup> /h	40 m <sup>3</sup> /h	3 m <sup>3</sup> /h
<b>FLASHING</b>		ACCEPTABLE	NO	TO BE CHECKED	NO	ACCEPTABLE	ACCEPTABLE

**NOTES:**

1) Highest values with appropriate nozzles distribution; 2) Up to 80 bar with two stage trim; 3) Lowest values for small nozzles; 4) Also 4" with reduced nozzles assembly dimensions; 5) For higher sizes contact CARRARO; 6) The greatest between the two values; 7) Up to 35% for multiple two sections assembly; 8) For single nozzle assembly.