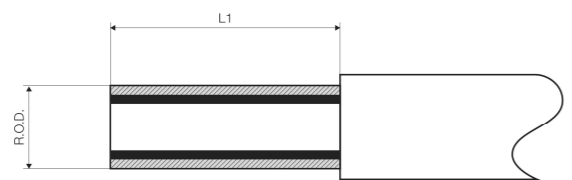



Swaging Diameter Chart - Caterpillar / VOSS Typ 134 Hoses

Skive



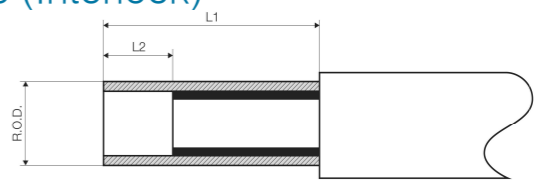
HOSE	DN	5	6	8	10	12	16	19	25	31	38	51
	INCH	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
	DASH	-03	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32
EN 853 1SN SAE 100 R1AT	SKIVE PF11	14.0	17.6	18.6	21.5	25.2	28.5	32.5	38.8			
	EXTERNAL SKIVE (L1)	18.0	22.5	22.5	22.5	26.0	27.0	31.0	39.0			
	R.O.D.	9.2	11.0	12.8	15.3	18.4	21.1	25.4	33.6			
EN 857 1SC	SKIVE PF11		16.9	17.7	20.9	24.6	27.8	30.9	37.2			
	EXTERNAL SKIVE (L1)		22.5	22.5	22.5	26.0	27.0	31.0	39.0			
	R.O.D.		10.0	11.2	13.5	17.2	20.1	23.9	31.0			
EN 857 2SC SAE 100 R16	SKIVE PF11		17.6	19.0	22.2	25.8	29.2	32.3	39.4			
	EXTERNAL SKIVE (L1)		22.5	22.5	22.5	26.0	27.0	31.0	37.0			
	R.O.D.		11.2	12.8	15.1	18.7	21.9	25.4	33.6			
2 SC PLUS EXCEEDS EN 857 2SC	SKIVE PF11		18.1	19.1	22.2	25.8	28.8	32.2	39.7			
	EXTERNAL SKIVE (L1)		22.5	22.5	22.5	26.0	27.0	31.0	37.0			
	R.O.D.		11.1	13.1	15.2	18.7	21.5	25.7	33.8			
2SC PLUS toughguard EXCEEDS EN 857 2SC	SKIVE PF11		17.9	19.0	22.0	25.7	28.8	32.5	40.0			
	EXTERNAL SKIVE (L1)		22.5	22.5	22.5	26.0	27.0	31.0	37.0			
	R.O.D.		11.3	13.2	15.2	18.7	21.6	25.8	36.6			
EN 853 2SN SAE 100 R2AT	SKIVE PF12 / PF13		PF12	PF12	PF12	PF12	PF13	PF13	PF12			
	EXTERNAL SKIVE (L1)		21.0	22.0	23.0	23.0	29.0	31.0	38.0	45.0		
	R.O.D.		12.7	14.3	16.7	19.9	23.0	27.1	35.2	44.7		
EN 856 4SP	SKIVE PF12 / PF13		PF12			PF12	PF13	PF13	PF13			
	EXTERNAL SKIVE (L1)		21.0			23.5	29.0	31.0	45.0	38.0		
	R.O.D.		15.0			20.7	24.0	28.7	45.7	35.1		

No Skive



HOSE	DN	6	8	10	12	16	19	25	31	38	51
	INCH	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
	DASH	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32
EN 853 1SN SAE 100 R1AT	NO SKIVE PF22	17.8	18.6	20.7	23.7	27.8	31.3	38.8			
	O.D.	13.6	15.1	17.7	21.1	24.0	28.1	36.4			
EN 857 1SC	NO SKIVE PF24	15.7	17.1	19.4	22.9	26.3	29.9	37.1			
	O.D.	12.4	13.7	15.8	19.1	22.5	26.2	33.8			
EN 853 2SN SAE 100 R2AT	NO SKIVE PF22	18.7	19.7	21.8	24.6	28.5	32.3	40.1	51.4		
	O.D.	15.1	16.5	19.1	21.9	25.0	29.5	38.3	48.5		
EN 857 2SC SAE 100 R16	NO SKIVE PF24	16.3	17.8	20.3	24.0	27.5	30.7	38.6			
	O.D.	13.2	14.8	17.0	20.3	23.8	27.8	35.9			
2SC PLUS EXCEEDS EN 857 2SC	NO SKIVE PF24	16.6	17.9	20.3	24.2	27.3	30.8	38.7			
	O.D.	13.1	14.6	16.8	20.5	23.6	27.9	35.7			
2SC PLUS toughguard EXCEEDS EN 857 2SC	NO SKIVE PF24	16.6	18.1	20.4	24.0	27.3	31.2	39.1			
	O.D.	13.5	15.0	17.3	20.6	23.8	27.9	36.3			

Double Skive (Interlock)



HOSE	DN	6	8	10	12	16	19	25	31	38	51
	INCH	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
	DASH	-04	-05	-06	-08	-10	-12	-16	-20	-24	-32
EN 856 4SH	DOUBLE SKIVE (INTERLOCK) MPF3							MPF3	MPF3	MPF3	
	EXTERNAL SKIVE (L1)							52.0	57.0	64.0	
	INTERNAL SKIVE (L2)							17.0	18.0	21.0	
	R.O.D.							28.4	35.7	42.0	
EN 856 R13 SAE 100 R13	DOUBLE SKIVE (INTERLOCK) MPF3 / MPF4							MPF3	MPF3		
	EXTERNAL SKIVE (L1)							52.0	57.0		
	INTERNAL SKIVE (L2)							17.0	18.0		
	R.O.D.							28.7	35.4		
SAE 100 R15	DOUBLE SKIVE (INTERLOCK) MPF3 / MPF4							MPF3	MPF3		
	EXTERNAL SKIVE (L1)							52.0	57.0		
	INTERNAL SKIVE (L2)							17.0	18.0		
	R.O.D.							28.8	35.5		

Crimping data of Caterpillar hydraulic hoses with VOSS fittings based on singular impulse pressure tests

Caution: Given values result from singular impulse pressure tests in accordance with ISO 6803 and may only be considered as guidance levels. Individual practices/conditions of crimping (e. g. choice of crimping machinery or tools), skiving and use may lead to considerably different values. Should you require information about specific individual crimping conditions or values please contact VOSS or Caterpillar technical support.

Skiving: Hoses that require skiving must be skived down to the wire layer. Wires may not be injured upon skiving under any circumstances. For wire braided hoses a remaining rubber film of 0.2 to 0.3 mm after skiving is acceptable. Verification of correct crimping may only be undertaken by measuring Insert Bore Collapse values. Indicated outside diameters of crimped ferrules (crimp dia reference) are of a non-binding indicative nature only as specific values vary due to the normed tolerances of the diameters of hoses and fittings.

The examination of the optimal bore collapse takes place with the help of the mandrel gauge case! (Mandrel gauge case Art.-No.: 7004791900).

The given values represent a starting point for the own definition of the swaging dimensions. Correct swaging dimensions lead to optimal bore collapse.

Warning: Use of incorrect parts or incorrect crimping may lead to leakage, failure or bursting of the hose line and may - particularly in operations with high operational pressure - result in material damage and/or personal injury. In case of doubt please seek specialist advice! All information given in this overview has been compiled thoroughly and is given to the best of our knowledge. Caterpillar and VOSS exclude any and all liability for the information given in this overview and discharge any claims, rights or demands that may be raised in connection therewith against them or their affiliates and users of this data sheet waive any and all respective rights. Subject to change without notice. The current version of this overview can be found at www.voss-fluid.net. All values are given in mm.