I.M.M. HYDRAULICS (UK) LTD

CHART OF RECOMMENDED SWAGING DIAMETERS

Dimensions: mm - Average tolerance +0.00/-0.2

Doc No. 01/11 Issue 12 11/12/2009

IMM Recommends the use of internel Collapse Gauges (TMBS-03-32)

Legend

- Standard Insert
- Long Tail Multispiral Insert
- Interlock Fitting
- 316 Stainless Steel

Product		EN 853 1ST SAE 100R1A TFD0001		EN 853 2ST SAE 100R2A TFD0002		EN 853 1SN - DIN 20022 1SN - TFD0011 & TFA0011I						EN 853 2SN - DIN 20022 2SN - TFD0021 & TFA0021I				EN 857 1SC TFE001K			EN 857 2SC TFE002K				SAE 100 R16			SAE 100 R17			2SC ANTI-ABRASIVE TFEPO2KI			HIPAC 3 BRAID THE003K		VAMAC TF-VAMAC	
Insert		STANDARD	316 STAINLESS	STANDARD	316 STAINLESS	STANDARD				316 STAINLESS	316 STAINLESS	STANDARD			316 STAINLESS	STANDARD	STANDARD	316 STAINLESS	STANDARD	STANDARD	STANDARD	316 STAINLESS	STANDARD	STANDARD	316 STAINLESS	STANDARD	STANDARD	316 STAINLESS	STANDARD	STANDARD	316 STAINLESS	STANDARD	316 STAINLESS	STANDARD	316 STAINLESS
		SKIVE	SKIVE	SKIVE	SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	NO SKIVE	PRE-CRIMP	NO SKIVE	SKIVE	SKIVE	NO SKIVE	NO SKIVE
Ferrule		0001	X001C	0002	X0022	001C	0022	0011	G	X001C	X0022	0022	0021	G	X0022	001C	G	X001C	001C	0022	G	X0022	0022	G	X0022	001C	G	X001C	001C	G	X0022	0001	X0022	0022	X0022
3/16"	03	14.9 20		16.6 21.0		14.5	15.2			16.1		16.5														13.5									
1/4"	04	17.2 23	16.4 21	17.8 22.0	17.7 21.5	15.8	16.5		16.5	16.6	17.8	18.0		18.0	18.4	15.3	15.5	16.1	16.1	16.7	17.0	17.8	17.0	17.3		15.2	16.0		16.1	17.0	17.8			18.0	
5/16"	05	19.2 23	16.8 19.5	20.5 22.0	19.2 21.5	18.2	18.7		18.5	18.0	19.5	19.9		19.5	20.3	16.7	18.0	17.7	18.1	18.7	18.8	19.5	19.2	18.8		17.1	18.0		18.1	18.8	19.5				
3/8"	06	21.1 24	20.4 22.0	21.7 24.0	21.5 21.5	19.8	20.8		20.5	20.8	21.6	21.7		21.5	22.3	19.1	20.0	19.5	19.6	20.8	20.5	21.6	21.0	21.0		18.7	21.0		19.6	20.5	21.6			21.6	
1/2"	08	25.0 25.0	23.3 24.5	25.1 25.0	24.8 23.5	23.5	24.3		24.0	24.0	25.1	25.1		25.0	25.8	22.6	23.0	23.5	23.2	24.3	24.5	25.2	24.7	25.3		22.8	24.8		23.2	24.5	25.2			24.8	
5/8"	10	28.3 27.0	27.1 27.0	28.7 27.0	28.0 28.0	27.0	26.5		27.5	28.0	28.3	27.7		28.0	29.4	26.4		27.4	27.1	27.0	27.5	28.2	27.5	28.2			28.5		27.1	27.5	28.2				
3/4"	12	32.3 31.0	29.5 30.5	33.0 31.0	32.8 31.0	30.5	31.1		31.0	30.7	32.2	31.7		32.5	33.4	29.0		30.0	30.5	30.5	31.5	32.4	31.3	31.6		29.9	32.6		30.5	31.5	32.4				
1"	16	39.9 37.0	39.0 39.0	40.5 37.0	39.4 35.0	38.5	38.3		39.0	39.9	39.3	40.2		41.0	40.5	36.8		38.4	38.5	39.0	39.5	39.4	39.6	40.3		39.2	42.0		38.5	39.5	39.4				
1.1/4"	20	47.4 42.0	49.0 39.5	50.8 43.0	52.7 40.5		48.0	47.5		49.7	51.7	51.0	50.4		53.2								48.0												
1.1/2"	24	53.0 44.0	53.4 46.5	57.2 45.0	56.5 48.0		55.5	53.6		54.5	54.9	58.0	59.8		57.1																				
2"	32	65.9 60.0	68.2 62.0	69.5 61.0	70.6 57.0		68.5	68.7		70.4	70.0	71.0	70.8		72.3																				

Product		EN 856 4SP - DIN 20023 4SP TFD04SP					EN 856 4SH - DIN 20023 4SH TFD04SH					EN 856 R13 - SAE 100 R13 TFS0013						EN 856 R15 - SAE 100 R15 TFS0015					
Insert		STANDARD	STANDARD	STANDARD	MULTISPIRAL	316 STAINLESS	STANDARD		MULTISPIRAL	INTER-LOCK	316 STAINLESS	STANDARD	STANDARD	MULTISPIRAL	INTER-LOCK	INTER-LOCK	316 STAINLESS	316 STAINLESS	STANDARD	STANDARD	INTER-LOCK	INTER-LOCK	316 STAINLESS	316 STAINLESS
		NO SKIVE	NO SKIVE	SKIVE	SKIVE	SKIVE	NO SKIVE	SKIVE	SKIVE	SKIVE	SKIVE	NO SKIVE	NO SKIVE	SKIVE	SKIVE	SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	SKIVE	SKIVE	NO SKIVE	NO SKIVE
Ferrule		BMC1	BMC2	0009	0019	X0022	BMC1	004H	0019	004N	X004N	BMC1	BMC2	0013S	004N	0013	X004N	X0013	BMC1	BMC2	004N	0013	X004N	X0013
3/16"	03																							
1/4"	04			18.4 22.0	18.4 30.0	18.4 21.5								23.5 34.0										
5/16"	05																							
3/8"	06			23.2 25.5	23.4 31.0	22.4 21.5								27.0 37.0										
1/2"	08			26.5 28.0	27.0 34.0	25.7 23.5								32.0 36.0										
5/8"	10			30.0 31.0	29.8 38.0	29.4 28.0																		
3/4"	12			34.3 33.0	34.9 39.0	33.8 31.0			34.6 39.0	34.1 52/15	33.0 52/15				34.1 52/15		34.1 52/15							
1"	16	46.0		42.3 48.0	42.7 56.0	40.2 35.0	46.4		42.2 56.0	41.5 64/17	41.5 64/17	46.3			41.5 64/17		42.6 64/17				42.5 64/17		42.6 64/17	
1.1/4"	20		57.3	51.2 54.0		52.4 40.5		48.5 54.0		50.5 74/22	50.5 74/22					53.8 74/22		54.2 74/22		55.2		53.8 74/22		54.2 74/22
1.1/2"	24			59.6 62.0		56.5 48.0		57.9 62.0		57.0 81/22.5	57.0 81/22.5					60.5 81/22.5		60.3 81/22.5				60.1 81/22.5		60.3 81/22.5
2"	32			73.0 64.0				70.5 64.0		72.0 85/30	72.0 85/30					77.9 85/30		77.9 85/30						

Product		SAE 100 R14 TF-PTFE						1SN JETWASH HOSE TFN0011 & TFB0011		2SN JETWASH HOSE TFN0021 & TFB0021	
Insert		STANDARD			316 STAINLESS	316 STAINLESS		STANDARD	316 STAINLESS	STANDARD	316 STAINLESS
		NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE		SKIVE	NO SKIVE	SKIVE	NO SKIVE
Ferrule		SMOOTH	CONVOLUTED	2 BRAID	SMOOTH	CONVOLUTED		0001	X001C	0002	X0022
		PTFE-03 10.3			XPTFE-03 10.3						
		PTFE-04 12.0	PTFE-04-C 13.15		XPTFE-04 12.0	XPTFE-04-C 13.15		17.2 23	16.4 21	17.8 22.0	17.7 21.5
								19.2 23	16.8 19.5	20.5 22.0	19.2 21.5
		PTFE-06 16.0	PTFE-06-C 15.20	PTFE-06-D 16.47	XPTFE-06 16.0	XPTFE-06-C 15.20		21.1 24	20.4 22.0	21.7 24.0	21.5 21.5
		PTFE-08 18.9	PTFE-08-C 19.40		XPTFE-08 18.9	XPTFE-08-C 19.40		25.0 25.0	23.3 24.5	25.1 25.0	24.8 23.5
		PTFE-10 22.8	PTFE-10-C 23.10		XPTFE-10 22.8	XPTFE-10-C 23.10					
		PTFE-12 26.2	PTFE-12-C 26.35		XPTFE-12 26.2	XPTFE-12-C 26.35					
		PTFE-16 33.2	PTFE-16-C 32.5		XPTFE-16 33.2	XPTFE-16-C 32.5					
			PTFE-20-C 44.3			XPTFE-20-C 44.3					
			PTFE-24-C 50.0			XPTFE-24-C 50.0					
			PTFE-32-C 61.6			XPTFE-32-C 61.6					

Product		SAE 100 R3 TF-0003	SAE 100 R4 TFS0004			SAE 100 R6 TF-0006		SAE 100 R7 TF-0007		SAE 100 R8 TF-0008	
Insert		STANDARD	STANDARD	STANDARD	316 STAINLESS	STANDARD	316 STAINLESS	STANDARD	316 STAINLESS	STANDARD	316 STAINLESS
		NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE
Ferrule		0003	0003	0021	X001C	0007	X0007	0007	X0007	0007	X0007
3/16"	03	14.6				13.0		12.0	11.8	12.0	11.8
1/4"	04	17.0				14.7		13.8	14.1	13.8	14.1
5/16"	05	18.4				17.1		16.3	16.1	16.3	16.1
3/8"	06	21.1				18.4		18.3	18.6	18.3	18.6
1/2"	08	25.7				23.1		22.3	22.8	22.3	22.8
5/8"	10	29.7				26.3			25.6		25.6
3/4"	12	33.2	34.5			30.2		29.0	29.0	29.0	29.0
1"	16	40.5	41.4		41.1	36.0		36.5	36.8	36.5	36.8
1.1/4"	20	46.2		49.8							
1.1/2"	24			58.0							
2"	32			68.2							

Product		WIRE BRAIDED THERMOPLASTIC COVER HOSE ALSO SUITABLE FOR SOLVENTS AND PAINTSPRAY									
		1 WIRE BRAID TF-MT1-						2 WIRE BRAID TF-MT2-			
Insert		STANDARD	STANDARD	STANDARD	PRE-CRIMP	STANDARD	316 STAINLESS	STANDARD	STANDARD	PRE-CRIMP	316 STAINLESS
		NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE	NO SKIVE		NO SKIVE
Ferrule		0007	0022	0011PS	G	G	X0022	42100	0022	G	X0022
		0007-03-IM 13.5									
		14.1		15.0	16.1	16.1		17.0		17.0	
		16.4	17.7		17.5	17.5		18.5		18.5	
		18.8	19.5			19.5		21.0		20.5	
		22.0				24.3		25.0		25.0	
		25.9	26.9			26.7					
		28.4				30.5			31.1		
		36.6	38.4			37.5			39.0		

Product		700 BAR THERMOPLASTIC HOSE			
					316 STAINLESS
					NO SKIVE
Ferrule		0009	0019	1AW-06	X0022
		17.7	17.7		18.2
				23.6	

Product		ORANGE THERMOPLASTIC SEWER HOSE TF-1PS		MULTIPURPOSE HOSE TF-TU25		AIR HOSE TF-AIR	
			316 STAINLESS		316 STAINLESS		316 STAINLESS
			NO SKIVE		NO SKIVE		NO SKIVE
Ferrule		0022	X0022	001C	X0022	0007	X0007
				17.1		14.7	
				19.0			
				21.0		18.4	
		24.8		25.0		23.1	
				28.0		26.3	
		32.2		31.6		30.2	
		39.6		38.6		36.0	