



# FRAM

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A product by Nøsted &



## Offshore

We supply products and solutions that take care of people,  
equipment and nature in demanding conditions

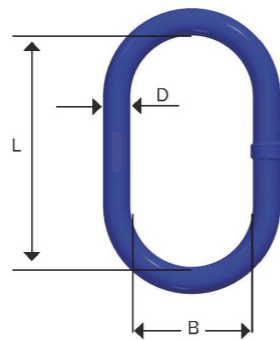
# Nøsted &

Nøsted & has its corporate office situated in Mandal, with additional locations in Kragerø, Lithuania, Canada and USA. A workforce of close to 400 employees that produce quality brands built up from over 300 years of branch experience

## Master links / According to DnV's offshore containers



Varenr Item no.	Code	WLL 5:1 ton	Dimensions mm			N.W. kg
			D	B	L	
0301058	22.6.OF	8,2	22	90	170	1,6
0301060	25.6.OF	10,7	25	103	190	2,3
0301061	28.6.OF	12,9	28	113,5	209	3,2
0301062	28.7.OF	11,8	28	140	270	4,0
0301063	32.6.OF	17,1	32	140	270	5,3
0301064	38.6.OF	28,1	38	140	270	7,5
0301066	45.6.OF	38,3	45	170	320	12,5
0301068	50.6.OF	45,0	50	200	380	18,0
0301069	60.6.OF	65,3	60	220	430	30,0

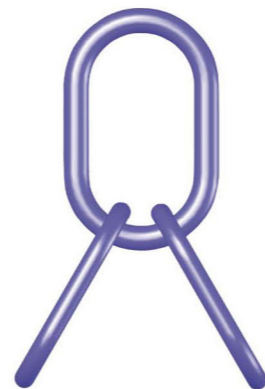


DNV standard for certification no 2.7-1  
Design factor 5:1. Proof tested and certified.

## Master links assemblies / According to DnV's offshore containers



Varenr Item no.	Code	WLL 5:1 ton	Master link		Intermediate M.L.		N.W.
			Code	Dim. mm	Code	Dim. mm	
301523	MA22 OF	8,2	22.6 OF	90 x 170	20.6 OF	80 x 150	3,8
301524	MA25 OF	10,7	25.6 OF	100 x 190	20.6 OF	80 x 150	4,5
301525	MA28 OF	12,9	28.6 OF	113,5 x 209	22.6 OF	90 x 170	6,4
301526	MA32 OF	17,1	32.6 OF	140 x 270	25.6 OF	100 x 190	9,9
301527	MA38 OF	28,1	38.6 OF	140 x 270	32.6 OF	140 x 270	18,2
301528	MA45 OF	38,3	45.6 OF	170 x 320	38.6 OF	140 x 270	27,7
301529	MA50 OF	45,0	50.6 OF	200 x 380	38.6 OF	140 x 270	33,2
301530	MA60 OF	65,3	60.6 OF	220 x 430	50.6 OF	200 x 380	66

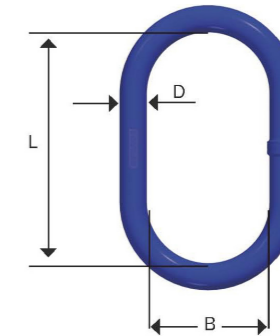


DNV standard for certification no 2.7-1  
Design factor 5:1. Proof tested and certified.

## Master links / According to EN 1677-4



Varenr Item no.	Code	WLL 5:1 ton	Dimensions mm			N.W. kg
			D	B	L	
0301002	13.B.5*	2,7	13	54	95	0,3
3	13.B.6*	2,7	13	60	115	0,4
4	16.B.6*	4,1	16	70	120	0,6
5	16.B.7	3,2	16	100	190	0,9
6	20.B.6*	6,7	20	82	150	1,1
7	20.B.7	6,5	20	90	170	1,3
8	22.B.6*	8,2	22	90	170	1,6
9	22.B.7	7,2	22	110	210	1,9
25	22.B.8	5,8	22	140	270	2,3
10	25.B.6*	10,7	25	103	190	2,3
11	28.B.6*	12,9	28	113,5	209	3,2
12	28.B.7	11,8	28	140	270	4
13	32.B.6*	17,1	32	140	270	5,3
14	38.B.6*	28,1	38	140	270	7,5
15	38.B.7	19,1	38	220	420	11
16	45.B.6	38,3	45	170	320	12,5
17	45.B.7	27,6	45	250	470	16,5
18	50.B.6	45	50	200	380	18
19	60.B.6	65,3	60	220	430	30
20	70.B.6	84,4	70	250	475	44



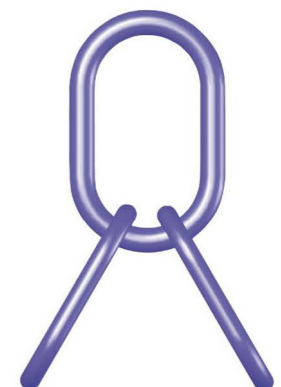
\* Fits Omega

European standard  
EN 1677-4

## Master links assemblies 0-45° according to EN 1677-4



Varenr Item no.	Code	WLL 5:1 ton	Master link		Intermediate M.L.		N.W.
			Code	Dim. mm	Code	Dim. mm	
0301501	Q.16.B	4,1	16.B.6	70 x 120	13.B.5	54 x 95	1,2
2	Q.20.B	6,5	20.B.7	90 x 170	16.B.6	70 x 120	2,5
0301515	Q.22.B.8	5,8	22.B.8	140 x 270	16.B.6	70 x 120	3,5
0301503	Q.22.B	8,2	22.B.6	90 x 170	20.B.6	80 x 150	3,8
4	Q.25.B	10,7	25.B.6	100 x 190	20.B.6	80 x 150	4,5
5	Q.28.B	12,9	28.B.6	113,5 x 209	22.B.6	90 x 170	6,4
6	Q.32.B	17,1	32.B.6	140 x 270	25.B.6	100 x 190	9,9
7	Q.38.B	28,1	38.B.6	140 x 270	32.B.6	140 x 270	18,2
8	Q.45.B	38,3	45.B.6	170 x 320	38.B.6	140 x 270	27,7
9	Q.50.B	45,0	50.B.6	200 x 380	38.B.6	140 x 270	33,2
10	Q.60.B	65,3	60.B.6	220 x 430	50.B.6	200 x 380	66,0
11	Q.70.B	84,0	70.B.6	250 x 475	60.B.6	220 x 430	103

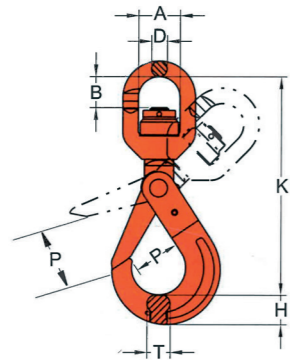


European standard  
EN 1677-4

DA swivel self locking hook



Varenr Item no.	Working load limit		Dimensions mm							N.W. kg
	5:1 ton	4:1 ton	A	B	D	H	K	P	T	
312950	5,3	6,7	61	50	23	39	283	51	30	5
312951	8	10	74	82	25	49	361	60	36	6
312952	12,8	16	74	82	25	65	387	70	53	13
312953	15,2	19	97	95	33	63	457	80	49	20
312954	21,2	26,5	123	115	42	69	535	99	56	32,7
312955	25,2	31,5	123	115	42	81	583	120	63	38,5



- Range 5.3 to 31.5 t
- Tested and manufactured in accordance with EN 1677-3
- Type approved in accordance with DNVGL-ST-0378
- Comply with Norsok R002
- The recessed trigger provides the locking mechanism being protected against inadvertent opening due to entanglement with any obstruction during lifting
- Dual design factor of 5:1 and 4:1
- Forged latch is self-locking under loading

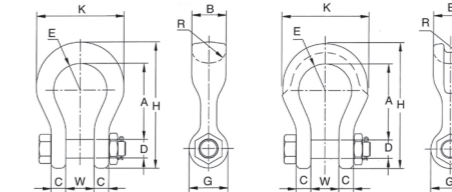


Fram Alloy Wide body shackle



Varenr Item no.	WLL 5:1 tonn	Dimensions mm									N.W. kg	
		A	B	C	D	E	F	H	K	R		W
0212001	7,0	91	41	18	22	32	46	150	104	92	33	1,7
0212002	12,5	118	54	23	29	41	61	194	140	35	44	3,8
0212003	18,0	148	64	30	36	51	68	238	172	38	54	6,7
0212004	30,0	176	80	35	45	64	89	289	216	45	60	12,5

- Shackles are forged alloy steel with alloy pin
- Size and working load limit permanently shown on each shackle
- All shackles with batch code which links to test certificate and quality traceability
- 100% magnaflux crack detection during manufacturing
- 20 000 cycle fatigue rated to 1.5 times working load limit

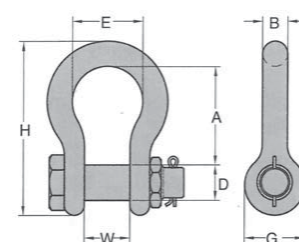


Yoke offshore container lifting shackles.  
DnV 2.7-1 type approved



Varenr Item no.	Dim. Code	WLL tonnes *	Dimensions mm							N.W. kg
			B	D	W	A	E	G	H	
219104	1/2"	2	13	16	20	47	33	30	85	0,4
219105	5/8"	3,25	16	19	27	61	43	38	106	0,7
219106	3/4"	4,75	19	22	33	72	50	46	126	1
219107	7/8"	6,5	22	26	38	86	58	53	148	1,7
219108	1"	8,5	26	28	44	96	68	61	166	2,4
219109	1 1/8"	9,5	28	32	46	111	74	68	190	3,4
219110	1 1/4"	12	32	36	54	121	84	76	210	4,8
219112	1 1/2"	17	38	43	60	146	99	92	254	8,8
219113	1 3/4"	25	47	51	73	178	127	106	313	17,5
219114	2"	35	53	57	83	197	146	122	347	24,2

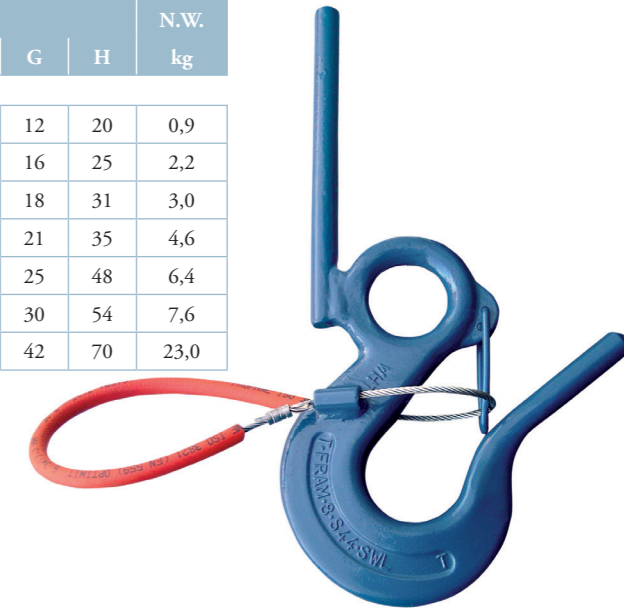
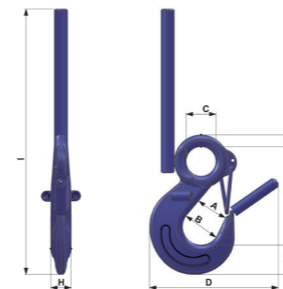
- Meets the following performance requirements:
- DnV 2.7-1
  - EN 13889
  - U.S Fed. Spec. RR-C-271F Type IVA, Grade A, Class 3, ASME B30.26.
  - Hot dip galvanized
  - 20 000 cycle fatigue rated to 1.5 times working load limit.
  - Charpy test of 42 joules (31ft. lbs.) at -40°C (-40°F)



Modified SK-hooks



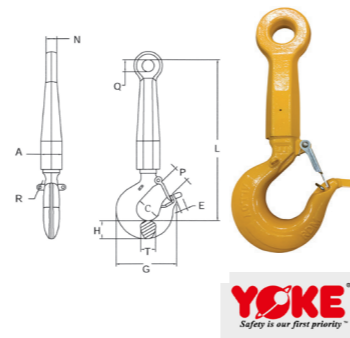
Varenr Item no.	Dim Code	WLL 4:1 tonn	Dimensions mm									N.W. kg
			A	B	C	I	D	E	F	G	H	
T5337816	RSK 41	2,5	24	34	26	345	120	95	35	12	20	0,9
T5337815	RSK 42	4,3	36	45	35	377	175	126	40	16	25	2,2
T5337814	RSK 43	6,2	42	54	46	405	195	150	49	18	31	3,0
T5337813	RSK 44	8,5	47	62	51	430	230	173	57	21	35	4,6
T5337812	RSK 45	12,5	57	73	58	455	260	200	71	25	48	6,4
T5337811	RSK 46	20,0	67	84	53	470	268	218	81	30	54	7,6
T533381	RSK 49	31,5	81	117	73	624	372	316	104	42	70	23,0



ROV shank hook



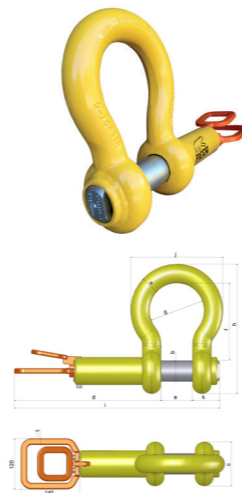
Varenr Item no.	WLL tonn	Dimensions mm											N.W. kg
		A	N	C	T	P	G	R	E	H	Q	L	
0313001	5,4	55	28	38	33	31	130	8	20	37	32	404	6,0
0313002	8,0	55	28	49	42	39	166	8	20	46	32	427	7,6
0313003	11,5	65	40	62	48	57	196	8	30	58	50	569	13,7
0313004	16,0	65	40	65	56	62	221	8	30	66	50	586	16,2
0313005	22,0	85	52	71	68	81	277	10	50	77	65	685	31,5
0313006	31,5	85	52	87	76	83	353	10	50	92	65	728	44,6



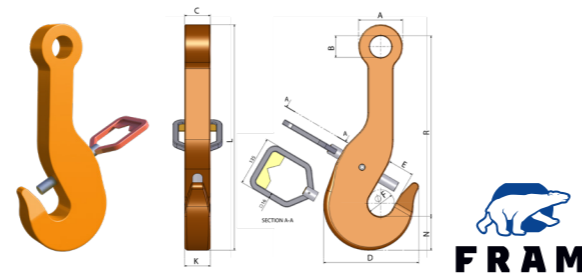
ROV shackle twist lock



Varenr Item no.	WLL 6:1 ton	Dimensions mm											N.W. kg
		A	B	C	D	E	F	G	H	I	J	K	
T1111647	12	32	35	74	289	51	115	83	218	388	154	48	4,6
T1110811	17	38	42	89	316	60	146	99	262	434	183	58	10
T1111620	25	45	50	104	341	74	178	126	314	478	226	64	12,5
T1111626	35	50	57	111	371	83	197	138	358	526	250	71	18,2



ROV hook, type RSHL-TL



Item no.	Replacement ROV	Name	Weight (kg)		Dimensions mm										Working Load Limit (ton)	MBL kN
			Each	Sub.	A	B	C	D	E	F	K	L	N	R		
On request		RSHL-TL6.5			60	26	32	175	50	50	40	394	62	320	6,5	383
T12214710	T12215457	RSHL-TL13.5	20	17,5	90	39	50	235	75	75	50	532	77	430	13.5	795
T12214710	T12203058	RSHL-TL 21	25	22	110	52	50	250	70	70	50	566	87	450	21	1236
T12215621	T12215645	RSHL-TL 21S	27	24	110	52	50	262	80	80	50	570	91	450	21	1236
T12201406	T12203058	RSHL-TL 25	30	26	110	52	60	250	70	70	60	566	87	450	25	1472
T12224836	T12224846	RSHL-TL 25S	33	29	110	52	60	285	85	85	60	575	91	450	25	1472
T12201374	T12202991	RSHL-TL35	40	35	120	59	70	259	70	70	70	642	92	490	35	2060
On request		RSHL-TL42,5			140	67	88	345	105	105	70	498	118	544	42,5	2502
On request		RSHL-TL55			160	72	82	409	115	115	70	799	139	616	55	3237
On request		RSHL-TL85			170	85	110	377	120	120	110	874	130	700	85	5003

Chain slings Grade 8

WLL at various lifting angels  
The working angle is the angle between each leg of the sling to the vertical.

Working angle	Safety factor 4						
	Singlelegged	2-legged			3 and 4-legged		
Factor	1	1,7	1,4	1	2,6	2,1	1,5
Chain dim. mm	WLL Working load limit in tonnes						
7	1,50	2,50	2,12	1,50	3,90	3,15	2,24
8	2,00	3,40	2,80	2,00	5,20	4,25	3,00
10	3,15	5,30	4,25	3,15	8,20	6,70	4,75
13	5,30	9,00	7,50	5,30	13,70	11,20	8,00
16	8,00	13,60	11,20	8,00	20,80	17,00	11,80
20	12,50	21,20	17,00	12,50	32,50	26,50	19,00
22	15,00	25,50	21,20	15,00	39,00	31,50	22,40
26	21,20	36,00	30,00	21,20	55,10	45,00	31,50
32	31,50	53,50	45,00	31,50	80,00	67,00	47,50



## Engineering

*In addition to the standard chains and components. Nøsted & design and manufacture components for special purpose. Non standard items are rings, hooks and special fittings for lifting and lashing operations.*

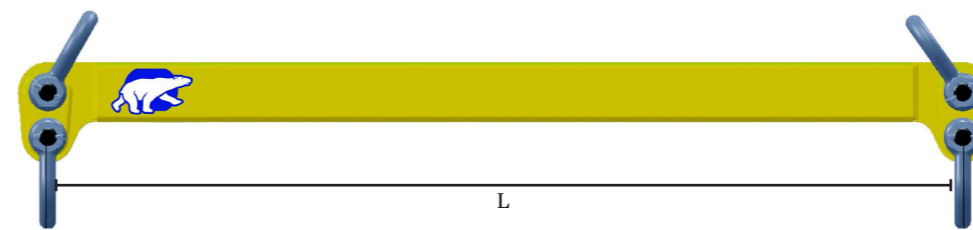
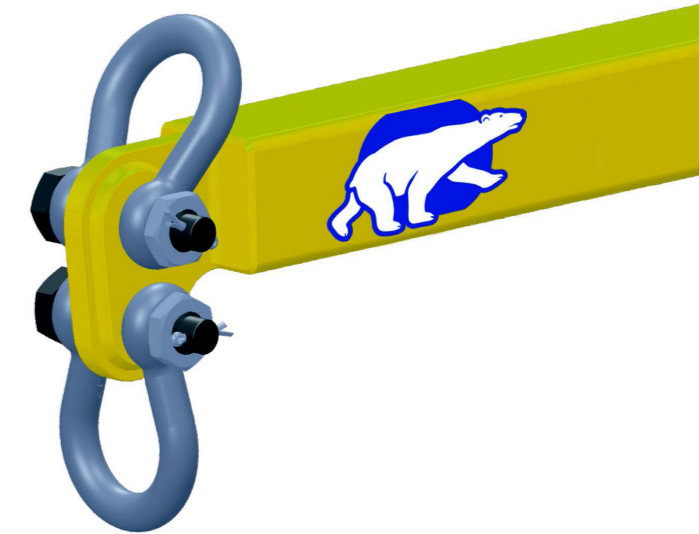
*If you inform Nøsted & of the capacity, use and other relevant details of the required non standard product, the engineering division will calculate and design a suitable component. Non standard products will be supplied with certification to customer requirements*



## Spreader Beam

Documentation options for FRAM spreader beam

Description	Normal	Option
Declaration of Conformity	x	
Lifting Certificate / Form 4	x	
GA Drawing	x	
Inspection and Testplan (ITP)		x
Material Traceability List and Certificates 3.1		x
Material Certificates 3.1		x
Weld Operators Certificates		x
NDT operators Certificates		x
MT Procedure		x
VT Procedure		x
Welding and NDT Log and Plan		x
Painting Report (Depending on standard)		x
Welding Procedure (WPS)		x
Welding Procedure Qualification (WPQ)		x
Dimensional Inspection Report		x
Design report		x
3rd party verification of Design Report		x
NDT Report		x
Proof Load Report		x
MCCR		x



## FRAM spreader beam

FRAM spreader beam no.	WLL (t)		Maximum length (mtr) L	Interface shackle (t)
	30°	45°		
1	16	13	3	9,5
2	20	16	5,5	12
3	23	18	5,5	13,5
4	27	20	5,5	17
5	40	26	7	25
6	45	30	8	35
7	62	40	10	41,5
8	55	35	8	55
9	85	55	10	85

The table shows max length and WLL in accordance with the Machinery Directive 2006/42 / EC.

All spreaders can be certified according to Norsok R-002, DnVGL ST N001, DnVGL ST-E273 2.7-3 and DnV 2.22, also with other max lengths and WLLs.

Price and delivery on request



**400 t Test Station**

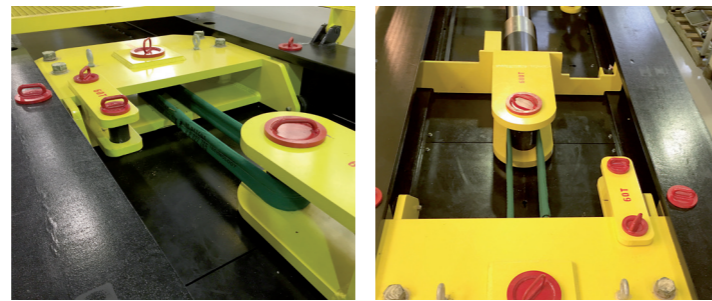
- Test lift up to 400 t
- Size 12x4x6 m (LxBxH)
- Frames, beams etc



Max dimentiones:  
Length: 4000 mm  
Width: 650 mm  
Height: 400 mm

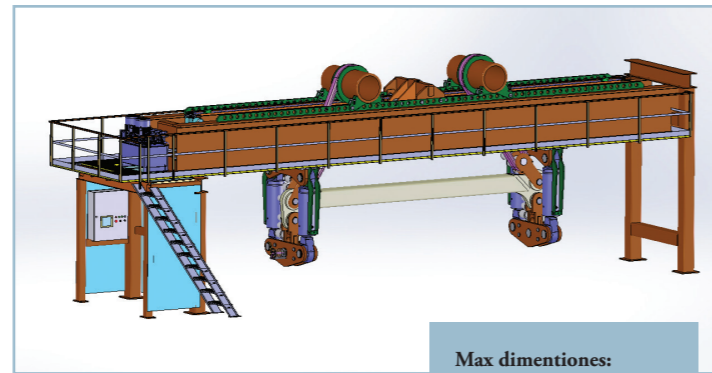
**Test Bench CT 200**

Capacity of 200 t  
We perform both tensile and fracture testing



**600 t Chant Testing Machine**

- 31 m overall length
- 27,4 m max specimen test length
- Full length and full capacity break test
- Maximum capacity: 600 t
- 60 t low load assembly
- Heavy duty electronic load cell(s)
- Hydraulic cylinder stroke: 1,83 m
- Touch screen controlled
- Hydraulic safety guard length of specimen
- Digital load readout
- Peak load readout
- Cycle testing
- Fully enclosed test bed frame for operator safety
- Computer/printer/ Chant Datatest software for recording and printing test certificates
- Electronic load readout accuracy ASTM E-4 +/-1%



Max dimentiones:  
Length: 10 m  
Width: 1000 mm  
Height: 1500 mm  
Working length: 550 mm

**Test Station CT 875**

For spreader beams and components.  
Capacity of 10 - 875 t for components and max capacity of 1100 t for spreader beams.



*Nøsted & AS is exclusive manufacturer for Slingmax® products in Scandinavia. A high end range of rigging solutions featuring their Twin-Path® fibre sling; low weight, extreme braking load.*

**Twin-Path® Metric Sling Chart - 7:1 Design Factor**

Capacities shown include both paths and are for one complete sling. Sling ratings baset on commercial fittings of equal or greater capacity. Conforms to ANSI/ASME B30,9 chapter 6, NAVFAC P-307 section 14.7.4.3, EN1492-2 and the Cordage Indsttute Roundsling Standard. This charts is baset on a 7:1 Design Factor (DF; but any other DF can be fabricated). Higher capacity slings are available. CAPACITIES ARE IN KILOGRAMS (kg)

Varenr Stock No.	Vertical (Ton)	Choker (Ton)	Basket Hitches (kg)			Approximate Weight (kg per m)	Nominal Body Width (mm)
			90°	60°	45°		
TPXMC(F)5	5	4	10	8,66	7,07	0,69	35 - 75
TPXMC(F)10	10	8	20	17,32	14,14	1,09	50 - 100
TPXMC(F)15	15	12	30	25,98	21,21	1,56	60 - 125
TPXMC(F)20	20	16	40	34,64	26,28	1,95	60 - 125
TPXMC(F)25	25	20	50	43,3	35,35	2,28	75 - 150
TPXMC(F)30	30	24	60	51,96	42,42	2,54	75 - 150
TPXMC(F)35	35	28	70	60,62	49,49	2,95	75 - 150
TPXMC(F)40	40	32	80	69,28	56,56	3,46	100 - 200
TPXMC(F)50	50	40	100	86,6	70,7	7,09	100 - 200
TPXMC(F)60	60	48	120	103,92	84,84	4,75	125 - 250
TPXMC(F)70	70	56	140	121,24	98,98	5,53	125 - 250
TPXMC(F)80	80	64	160	138,56	113,12	6,33	125 - 250
TPXMC(F)90	90	72	180	155,88	127,26	6,92	150 - 300
TPXMC(F)100	100	80	200	173,2	141,4	7,34	150 - 300
TPXMC(F)120	120	96	240	207,84	169,68	8,99	175 - 350
TPXMC(F)130	130	104	260	225,16	183,82	9,76	175 - 350
TPXMC(F)150	150	120	300	259,8	212,1	11,22	175 - 350

\*Dimensions can vary according to the hardware or bearing points the slings are used with. Minimum is "tapered" width. Maximum is the flat tubing width.





# FRAM

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[www.nosted.com](http://www.nosted.com)

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