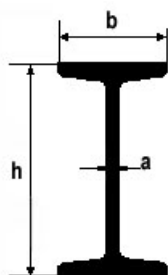


# TRAVI

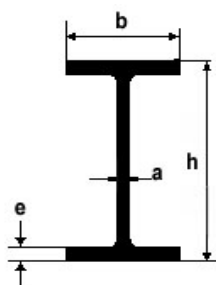
- NP
- IPE
- HEA
- HEB
- HEM

# TRAVI NP



h	Misure			Peso
	b	a	e	kg/m
80	42	3.90	5.9	5.90
100	50	4.50	6.8	8.30
120	58	5.10	7.7	11.10
140	66	5.70	8.6	14.30
160	74	6.30	9.5	17.90
180	82	6.90	10.4	21.90
200	90	7.50	11.3	26.20
220	98	8.10	12.2	31.00
240	106	8.70	13.1	36.20
260	113	9.40	14.1	41.90
280	119	10.10	15.2	47.90
300	125	10.80	16.2	54.20
320	131	11.50	17.3	61.00
340	137	12.20	18.3	68.00
360	143	13.00	19.5	76.10
380	149	13.70	20.5	84.00
400	155	14.40	21.6	92.50
425	163	15.30	23.0	104.00
450	170	16.20	24.3	115.00
475	178	17.10	25.6	128.00
500	185	18.00	27.0	141.00
550	200	19.00	30.0	166.00
600	215	21.60	32.4	199.00

# TRAVI IPE



Misure				Peso
h	b	a	e	
mm	mm	mm	mm	kg/m
80	46	3.80	5.2	6.00
100	55	4.10	5.7	8.10
120	64	4.40	6.3	10.40
140	73	4.70	6.9	12.90
160	82	5.00	7.4	15.80
180	91	5.30	8.0	18.80
200	100	5.60	8.5	22.40
220	110	5.90	9.2	26.20
240	120	6.20	9.8	30.70
270	135	6.60	10.2	36.10
300	150	7.10	10.7	42.20
330	160	7.50	11.5	49.10
360	170	8.00	12.7	57.10
400	180	8.60	13.5	66.30
450	190	9.40	14.6	77.60
500	200	10.20	16.0	90.70
550	210	11.10	17.2	106.00
600	220	12.00	19.0	122.00

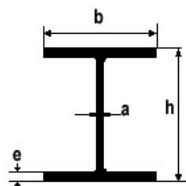
## TRAVE SEMPLICEMENTE APPOGGIATA AGLI ESTREMI SOLLECITATA A FLESSIONE CON CARICO UNIFORME

IPE	DISTANZA DEGLI APPOGGI IN METRI								
	3	4	5	6	7	8	9	10	11
80	835								
100	1435	1062	835						
120	2230	1654	1305	1068	896				
140	3259	2482	1914	1572	1323	1134	983		
160	4603	3425	2711	2230	1882	1618	1408	1237	1094
180	6173	4597	3644	3002	2538	2186	1907	1681	1492
200	8210	6118	4854	4004	3391	2925	2557	2259	2011
220	10673	7959	6320	5219	4425	3822	3348	2964	2644
240	13732	10265	8141	6728	5710	4938	4332	3840	3432
270	18196	13584	10802	8935	7592	6575	5776	5130	4595
300	23630	17555	14048	11629	9890	8574	7542	6798	6107
330	30214	22620	18007	14916	12694	11015	9698	8635	7757
360		28700	22857	18943	16130	14007	12343	11000	9891
400		36855	29364	24349	20747	18030	15901	14185	12769
450			38012	31534	26885	23379	20635	18424	16601
500			48954	40629	34656	30154	26632	23797	21460

## TRAVE SEMPLICEMENTE APPOGGIATURA AGLI ESTREMI SOLLECITATA A FLESSIONE CON CARICO CONCENTRATO IN MEZZERIA

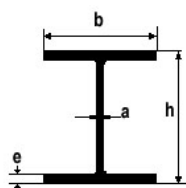
IPE	DISTANZA DEGLI APPOGGI IN METRI								
	3	4	5	6	7	8	9	10	11
100	718								
120	1115	827	653						
140	1630	1211	957	786	662	567			
160	2302	1713	1356	1115	941	809	704	619	
180	3087	2299	1822	1501	1269	1093	954	841	746
200	4105	3059	2427	2002	1696	1463	1279	1130	1006
220	5337	3980	3160	2610	2213	1911	1674	1482	1322
240	6861	5123	4071	3364	2855	2469	2166	1920	1716
270	9090	6792	5401	4468	3796	3288	2888	2565	2298
300	11820	8828	7024	5815	4945	4287	3771	3354	3054
330	15137	11310	9004	7458	6347	5508	4845	4318	3879
360	19199	14350	11429	9472	8065	7004	6172	5500	4946
400	24648	18428	14682	12175	10374	9015	7951	7093	6385
450	31833	23844	19006	15767	13443	11689	10318	9212	8301
500	41037	30698	24477	20315	17328	15077	13316	11899	10730
100	718								

# TRAVI HEA



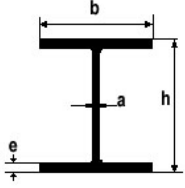
	Misure				Peso
	h mm	b mm	a mm	e mm	kg/m
100	96.00	100.00	5.00	8.0	16.70
120	114.00	120.00	5.00	8.0	19.90
140	133.00	140.00	5.50	8.5	24.70
160	152.00	160.00	6.00	9.0	30.40
180	171.00	180.00	6.00	9.5	35.50
200	190.00	200.00	6.50	10.0	42.30
220	210.00	220.00	7.00	11.0	50.50
240	230.00	240.00	7.50	12.0	60.30
260	250.00	260.00	7.50	12.5	68.20
280	270.00	280.00	8.00	13.0	76.40
300	290.00	300.00	8.50	14.0	88.30
320	310.00	300.00	9.00	15.5	97.60
340	330.00	300.00	9.50	16.5	105.00
360	350.00	300.00	10.00	17.5	112.00
400	390.00	300.00	11.00	19.0	125.00
450	440.00	300.00	11.50	21.0	140.00
500	490.00	300.00	12.00	23.0	155.00
550	540.00	300.00	12.50	24.0	166.00
600	590.00	300.00	13.00	25.0	178.00
650	640.00	300.00	13.50	26.0	190.00
700	690.00	300.00	14.50	27.0	204.00
800	790.00	300.00	15.00	28.0	224.00
900	890.00	300.00	16.00	30.0	252.00
1000	990.00	300.00	16.50	31.0	272.00

# TRAVI HEB



	Misure				Peso
	h mm	b mm	a mm	e mm	kg/m
100	100.00	100.00	6.00	10.0	20.40
120	120.00	120.00	6.50	11.0	26.70
140	140.00	140.00	7.00	12.0	33.70
160	160.00	160.00	8.00	13.0	42.60
180	180.00	180.00	8.50	14.0	51.20
200	200.00	200.00	9.00	15.0	61.30
220	220.00	220.00	9.50	16.0	71.50
240	240.00	240.00	10.00	17.0	83.20
260	260.00	260.00	10.00	17.5	93.00
280	280.00	280.00	10.50	18.0	103.00
300	300.00	300.00	11.00	19.0	117.00
320	320.00	300.00	11.50	20.5	127.00
340	340.00	300.00	12.00	21.5	134.00
360	360.00	300.00	12.50	22.5	142.00
400	400.00	300.00	13.50	24.0	155.00
450	450.00	300.00	14.00	26.0	171.00
500	500.00	300.00	14.50	28.0	187.00
550	550.00	300.00	15.00	29.0	199.00
600	600.00	300.00	15.50	30.0	212.00
650	650.00	300.00	16.00	31.0	225.00
700	700.00	300.00	17.00	32.0	241.00
800	800.00	300.00	17.50	33.0	262.00
900	900.00	300.00	18.50	35.0	291.00
1000	1000.00	300.00	19.00	36.0	314.00

# TRAVI HEM



	Misure				Peso
	h mm	b mm	a mm	e mm	kg/m
100	120.00	106.00	12.00	20.0	41.80
120	140.00	126.00	12.50	21.0	52.10
140	160.00	146.00	13.00	22.0	63.20
160	180.00	166.00	14.00	23.0	76.20
180	200.00	186.00	14.50	24.0	88.90
200	220.00	206.00	15.00	25.0	103.00
220	240.00	226.00	15.50	26.0	117.00
240	270.00	248.00	18.00	32.0	157.00
260	290.00	268.00	18.00	32.5	172.00
280	310.00	288.00	18.50	33.0	189.00
300	340.00	310.00	21.00	39.0	238.00
320	359.00	309.00	21.00	40.0	245.00
340	377.00	309.00	21.00	40.0	248.00
360	395.00	308.00	21.00	40.0	250.00
400	432.00	307.00	21.00	40.0	256.00
450	478.00	307.00	21.00	40.0	263.00
500	524.00	306.00	21.00	40.0	270.00
550	572.00	306.00	21.00	40.0	278.00
600	620.00	305.00	21.00	40.0	285.00
650	668.00	305.00	21.00	40.0	293.00
700	716.00	304.00	21.00	40.0	301.00
800	814.00	303.00	21.00	40.0	317.00
900	910.00	302.00	21.00	40.0	333.00
1000	1008.00	302.00	21.00	40.0	349.00

## CARICHI MASSIMI AMMISSIBILI

### TRAVE SEMPLICEMENTE APPOGGIATA AGLI ESTREMI SOLLECITATA A FLESSIONE CON CARICO UNIFORME

		DISTANZA DEGLI APPOGGI IN METRI								
		3	4	5	6	7	8	9	10	11
HE 100	A	3064	2269	1785	1457	1218	1034	888	767	666
	B	3779	2798	2202	1798	1503	1277	1096	948	823
	M	7981	5913	4655	3803	3182	2706	2326	2014	1751
HE 120	A	4463	3324	2614	2142	1799	1537	1328	1167	1015
	B	6064	4501	3553	2912	2446	2090	1808	1576	1382
	M	12132	9007	7112	5831	4902	4191	3627	3165	2778
HE 140	A	6546	4866	3848	3162	2664	2285	1984	1739	1534
	B	9115	6777	5362	4406	3714	3186	2769	2428	2142
	M	17346	12899	10206	8389	7073	6070	5276	4629	4087
HE 160	A	9295	6918	5480	4510	3810	3277	2855	2512	2226
	B	13141	9782	7749	6379	5389	4635	4039	3555	3150
	M	23934	17817	14117	11624	9822	8451	7368	6487	5752
HE 180	A	12438	9266	7295	6059	5128	4420	3862	3408	3031
	B	18022	13427	10650	8781	7431	6406	5598	4941	4394
	M	31648	23580	18704	15424	13055	11257	9838	8685	7726
HE 200	A	16470	12278	9746	8044	6815	5884	5150	4554	4059
	B	24136	17995	14286	11792	9994	8630	7555	6683	5959
	M	40950	30532	24240	20011	19961	14648	12826	11348	10121
HE 220	A	21822	16278	12932	10684	9064	7836	6870	6087	5437
	B	31188	23266	18484	15272	12958	11204	9824	8706	7778
	M	51702	38572	30647	25325	21490	18584	16298	14446	12909
HE 240	A	28619	21359	16979	14038	11921	10318	9057	8037	7191
	B	39772	29683	23630	19511	16570	14342	12591	11174	10000
	M	76329	56972	45295	37458	31815	27544	24187	21470	19218
HE 260	A	35465	26479	21061	17425	14809	12830	11276	10109	8978
	B	48787	36428	28975	23975	20378	17656	15519	13790	12359
	M	91644	68432	54436	45048	38293	33184	29172	25928	23243
HE 280	A	42864	32014	25474	21088	17933	15549	13677	12164	10912
	B	58571	43748	34813	28822	24513	21256	18700	16634	14925
	M	108233	80844	64335	53266	45306	39288	34566	30750	27594
HE 300	A	53495	39967	31815	26530	22422	19454	17125	15245	13691
	B	71329	53292	42423	35138	29901	25944	22840	20334	18262
	M	147766	110398	87898	72805	61968	53776	47351	42164	37877
HE 320	A	62854	46969	37400	30988	26380	22899	20170	17968	16142
	B	81966	61252	48773	40411	34402	29864	26306	23434	21061
	M	171365	133340	104283	86520	73455	63776	56248	50174	45129
HE 340	A	91758	68584	54586	45276	38559	33488	29514	26308	23661
	B	124329	92683	72975	60510	51578	44840	39565	35314	31808
	M	239346	178177	141177	116247	98227	84517	73687	64877	57527
HE 360	A	101974	76232	60730	50348	42892	37264	32855	29300	26365
	B	136815	102025	80025	67407	57711	50318	44378	39428	35428
	M	259287	192928	152928	125928	107928	93928	82928	73928	66928
HE 400	A	122415	91540	72953	60510	51578	44840	39565	35314	31808
	B	162415	121540	97953	80510	69578	60840	53565	47314	42808
	M	312980	232980	182980	152980	130980	114980	100980	89980	80980
HE 450	A	112916	84205	66705	55305	47075	40725	35925	31728	28318
	B	152916	114205	90705	74705	63771	55432	48950	43730	39428
	M	282980	212980	162980	132980	112980	97980	85980	76980	69980
HE 500	A	112980	84205	66705	55305	47075	40725	35925	31728	28318
	B	152980	114205	90705	74705	63771	55432	48950	43730	39428
	M	282980	212980	162980	132980	112980	97980	85980	76980	69980

**TRAVE SEMPLICEMENTE APPOGGIATURA AGLI ESTREMI SOLLECITATA A FLESSIONE CON CARICO CONCENTRATO IN MEZZERIA**

		Distanza degli appoggi in metri								
		3	4	5	6	7	8	9	10	11
HE 100	A	1532	1135	893	729	609	517	442	384	
	B	1890	1399	1101	899	752	639	548	494	412
	M	3991	2957	2328	1902	1591	1353	1163	1007	876
HE 120	A	2232	1662	1307	1071	900	769	664	584	508
	B	3032	2251	1777	1456	1223	1045	904	788	691
	M	6066	4504	3556	2916	2451	2096	1814	1588	1389
HE 140	A	3273	2433	1924	1581	1332	1143	992	870	767
	B	4558	3389	2681	2203	1857	1593	1385	1214	1071
	M	8673	6450	5103	4195	3537	3035	2638	2315	2044
HE 160	A	4648	3459	2740	2225	1905	1639	1428	1256	1113
	B	6571	4891	3875	3190	2695	2318	2020	1778	1575
	M	11967	8909	7059	5812	4911	4226	3684	3244	2876
HE 180	A	6219	4633	3648	3030	2564	2210	1931	1704	1516
	B	9011	6714	5325	4391	3716	3203	2799	2491	2197
	M	15824	11790	9352	7712	6528	5629	4919	4343	3863
HE 200	A	8235	6139	4873	4022	3408	2942	2575	2277	2030
	B	12068	8938	7143	5896	4997	4315	3778	3342	2980
	M	20475	15866	12210	10006	8481	7324	6413	5674	5061
HE 220	A	10911	8139	6466	5342	4532	3918	3435	3044	2719
	B	15594	11633	9242	7636	6479	5602	4912	4353	3889
	M	25851	19286	15324	12663	10745	9292	8149	7223	6455
HE 240	A	14310	10680	8485	7019	5961	5159	4529	4019	3596
	B	19886	14842	11815	9756	8285	7171	6296	5587	5000
	M	38165	28486	22648	18729	15908	13772	12094	10735	9609
HE 260	A	17733	13240	10581	8713	7405	6415	5638	5055	4489
	B	24394	18214	14488	11988	10189	8828	7760	6895	6180
	M	45822	34216	27218	22524	19197	16592	14586	12582	11622
HE 280	A	21432	16007	12737	10544	8967	7775	6839	6082	5456
	B	29286	21874	17404	14411	12257	10628	9350	8317	7463
	M	54117	40422	32168	26633	22653	19644	17283	15375	13797
HE 300	A	26748	19983	15908	13175	11211	9727	8563	7623	6846
	B	35665	26646	21212	17569	14951	12972	11420	10167	9131
	M	73883	55199	43949	36403	30984	26888	23676	21082	18939
HE 320	A	31427	23485	18700	15494	13190	11450	10085	8984	8074
	B	40983	30626	24387	20206	17201	14932	13153	11717	10531
	M	82910	61252	48764	40412	34191	29364	25457	22301	19717
HE 340	A	35683	26670	21242	17605	14993	13020	11474	10227	9197
	B	45879	34292	27293	22688	19280	17144	14757	13154	11831
	M	91758	68584	54584	45376	38360	32288	27914	24308	21362
HE 360	A	40152	30016	23912	19824	16888	14672	12936	11536	10390
	B	50987	38116	30365	25174	21446	18632	16428	14650	13183
	M	101974	76232	60730	50348	42892	37264	32856	28900	25766
HE 400	A	48098	36710	29256	24265	20683	17980	15864	14159	12753
	B	61208	45770	36477	30255	25789	22420	19783	17657	15904
	M	122416	91540	72954	60510	51578	44840	39566	34914	31108
HE 450	A	61657	46120	36770	30514	26025	22540	19992	17860	16103
	B	75477	56458	45013	37354	31859	27716	24475	21865	19714
	M	150954	112916	89026	74708	63718	55432	48950	43130	38428
HE 500	A	75201	52490	45053	37402	31915	27780	24547	21945	19802
	B	91240	68266	54445	45199	38569	33572	29665	26521	23932

TRAVE INCASTRATA AD UN ESTREMO E GUIDATA ALL'ALTRO SOLLECITATA A COMPRESSIONE ASSIALE

	DISTANZA DEGLI APPOGGI IN METRI								
	3	4	5	6	7	8	9	10	11
HE 100	A	18434	13732	9093	6304	4621	3533		
	B	22857	16979	11304	7834	5722	4411		
	M	49777	38342	26851	18873	13773	10587		
HE 120	A	25142	20139	15629	10852	8000	6124		
	B	34000	27336	21501	15027	11012	8408		
	M	68987	56812	44827	33096	24145	18605		
HE 140	A	33718	28384	23367	18402	13469	10295		
	B	46802	39540	32300	26060	19005	14638		
	M	89555	77221	64159	52636	39558	30060		
HE 160	A	44028	38559	32333	26874	21333	16166		
	B	61617	54300	46459	38442	30808	23608		
	M	113401	100232	85834	72260	60925	46936		
HE 180	A	53688	48000	42385	36059	30582	24404		
	B	77392	69653	61099	52502	44649	35903		
	M	136300	123319	109204	94416	80928	68666		
HE 200	A	65709	59777	53465	46782	40413	34850		
	B	96123	87384	78100	68659	59504	51850		
	M	161600	148992	135585	118689	104517	90943		
HE 220	A	80375	74014	67241	60517	53305	46342		
	B	113750	105507	95789	86153	75833	67096		
	M	188220	175764	160429	144000	129210	113828		
HE 240	A	97523	90352	84164	76322	67889	61134		
	B	134603	125629	116164	106000	95280	85226		
	M	255488	240120	223328	206038	186760	166333		
HE 260	A	112000	104421	97802	90181	82177	74267		
	B	152774	142436	134354	123816	112094	102400		
	M	288000	270276	252776	234240	216888	197393		
HE 280	A	127606	119753	112811	104483	96695	87954		
	B	172327	161723	152459	143020	131400	120137		
	M	317619	300250	282589	265048	247948	226070		
HE 300	A	148760	140625	132352	125000	116883	106508		
	B	197157	186375	176711	166825	154909	142850		
	M	407529	384888	364631	343943	323306	301217		
HE 320	A	164495	155500	146352	138222	129246	117775		
	B	213289	201625	191170	179222	167584	154538		
	M	176528	166875	157058	148333	137806	126390		
HE 340	A	225983	213625	201058	187287	177558	163736		
	B	188826	178500	168000	157572	147406	135195		
	M	238809	225750	212470	200666	187636	170982		
HE 400	A	208524	198750	187058	175448	162038	149647		
	B	261553	247250	232705	218262	204180	186164		
	M	233442	222500	209411	195068	181401	166549		
HE 450	A	285901	272500	256470	240551	222165	205116		
	B	259016	244961	232352	216438	198742	184795		
	M	312918	295937	280705	261479	243159	223251		