

Hydraulically operated stubs puller

Grippul



Quick attaching gripper tube pullers

Grippul series quick attaching gripper tube pullers, incorporating know-how from Maus Italia's more than thirty years experience in tube extraction with the **TP/30** and **TP/60** automatic pullers, have now reached their **second generation** with the **Grippul 11** and **Grippul 21**. The second generation Grippul feature significant innovations that improve the operating characteristics and strength of the tool set.

The **Grippul** is designed and built for **rapid extraction of tube stubs from tube sheets**.

The **Grippul**, available in electric or pneumatic versions, has integral remote control and is now available in the **second generation Grippul 11** and **Grippul 21** models, which differ in extraction force.

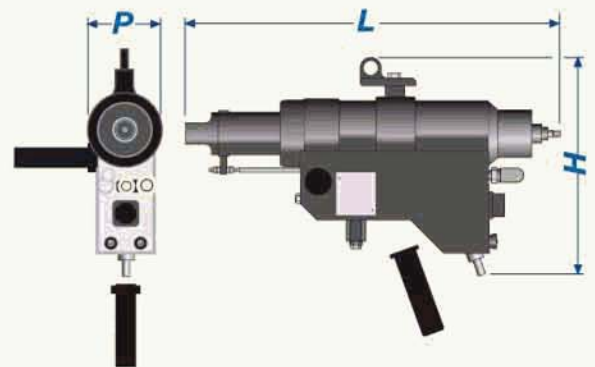
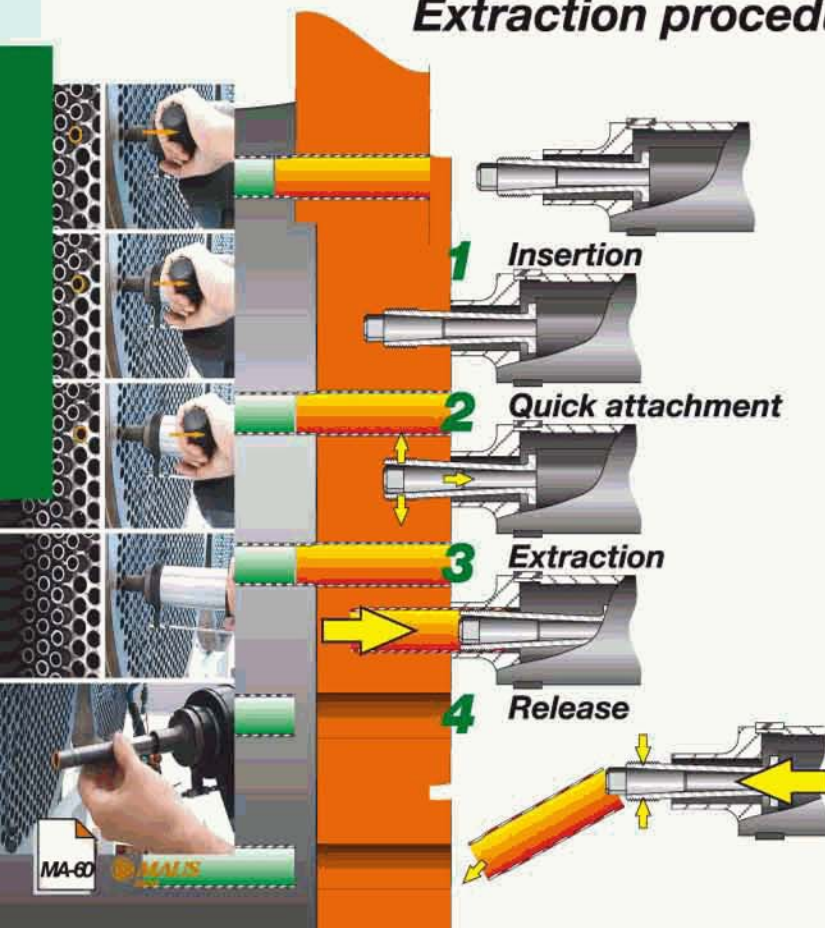
Flexible
Tolerance up to
1 mm (0.04") of iD

Quick
4÷6 extractions
per minute

Economical
Low
tool wear

High quality
No damage to hole
in the tube-sheet

Extraction procedure

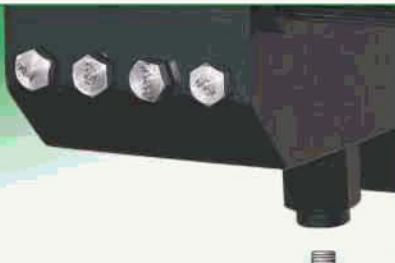


Comes complete with:

- Carrier case
- Set of spare gaskets
- Set of service spanners
- Pressure gauge
- Instruction booklet
- Set of service tools
- 2 (Two) hydraulic hoses:

Ø 9,5mm x 6m
Ø 3/8" x 19,7 ft





The **ABTS** (Anti-Breaking Tie-Rod System) allows the force with which the jaw penetrates the tube to be regulated to suit the tube's diameter and the material of which it is made. This device means the system is **unaffected by the difference in inside diameter of, as much as 1 mm (0.04")**, between tubes in the same sheet, preventing tie-rod breakage.



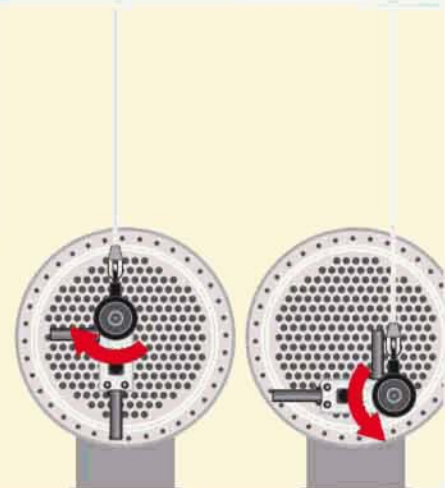
The **RC24** remote control beside the knobs **simplifies and speeds up stub extraction**. The remote control is fitted on both pneumatic and electric versions.



The electric **OPS** (Over Pressure Switch) cuts off hydraulic fluid delivery when the piston reaches the end of its stroke, **preventing unnecessary overpressure in the system**.



The **RSR** (revolving support ring) on which the Grippul is suspended during use allows **optimal positioning in the tightest spaces**.



Model	Tube		Maximum pulling force		Remote control power supply			Piston stroke		Max. pressure		Dimensions				Weight		Balancer			
	min	max	KN	Lb	Volt	Bar	Psi	mm	"	Bar	Psi	L		P		H			Kg	Lb	IP
	mm	"										mm	"	mm	"	mm	"				
Grippul 11 E	12,7 ÷ 38,1	1/2" ÷ 1.1/2"	10	22000	24	-	-	120	4.72"	350	5075	500	19.7"	113	4.45"	270	10.63"	23	51	55	TPB 10
Grippul 11 P	12,7 ÷ 38,1	1/2" ÷ 1.1/2"	10	22000	-	6,3	91.4	120	4.72"	350	5075	500	19.7"	113	4.45"	270	10.63"	23	51	-	TPB 10
Grippul 21 E	25,4 ÷ 63,5	1" ÷ 2.1/2"	20	44000	24	-	-	130	5.12"	350	5075	600	23.6"	130	5.12"	290	11.43"	34	75	55	TPB 20
Grippul 21 P	25,4 ÷ 63,5	1" ÷ 2.1/2"	20	44000	-	6,3	91.4	130	5.12"	350	5075	600	23.6"	130	5.12"	290	11.43"	34	75	-	TPB 20

TP10-E TP10-P

Semi-automatic Electrical and Pneumatically hydraulic pump unit



Model	Max. pressure *		Oil flow rate		Power supply	Remote control power supply		Dimensions			Weight		IP		
	bar	psi	Lt/min (bar)	US gpm (psi)		Volt	mm	"	mm	"	mm	"		Kg	Lb
TP10-E	350	5075	12 (0÷70) 0,9 (70÷350)	3,17 (0÷1015 psi) 0,24 (1015÷5075 psi)	1,1Kw-230/400V-50/60Hz-3Ph	24	680	26.8"	520	20.5"	720	28.3"	82	181	30

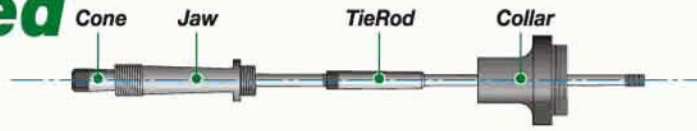
Model	Max. pressure *		Oil flow rate		Power supply	Air pressure required		Dimensions			Weight				
	bar	psi	Lt/min (bar)	US gpm (psi)		bar	psi	mm	"	mm	"	mm	"	Kg	Lb
TP10-P	350	5075	12 (0÷70) 0,9 (70÷350)	3,17 (0÷1015 psi) 0,24 (1015÷5075 psi)	1,7Kw-7 bar (67Cfm) 1900 Lt/min (67Cfm)	7	100	680	26.8"	460	18.1"	600	23.6"	82	181

* On request available also 700 Bar (10000 psi) version

The **Grippul** can also be used with **TP/60** power units, providing considerably enhanced performance.



Hydraulically operated stubs puller



Grippul

Tools

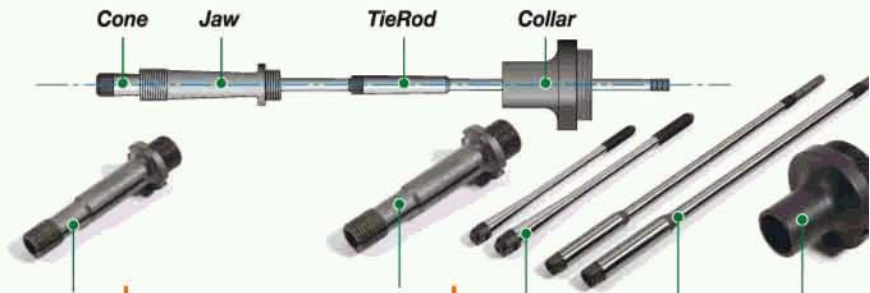
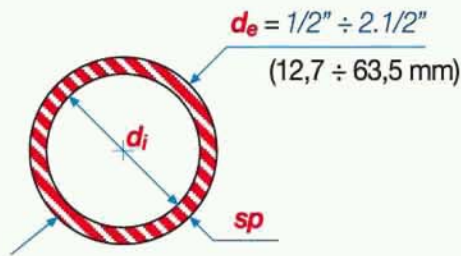


de " mm	Tube sp		di		Expansion		Jaw G11J	Expansion		Jaw G21J	Cone		TieRod		Collar TPC	
	B.W.G.	"	mm	"	mm	"	mm	"	mm	"	mm	Cod.	Cod.	Cod.	Cod.	Cod.
1/2" (12,7)	14	0.083	2,11	0.334	8,5	0.335÷0.393	8,5÷10,0	G11J-02	-	-	-	-	-	-	-	-
	16	0.065	1,65	0.370	9,4	-	-	-	-	-	-	-	-	-	-	-
	17	0.058	1,47	0.384	9,7	-	-	-	-	-	-	-	-	-	-	-
	18	0.049	1,24	0.402	10,2	0.347÷0.433	9,5÷11,0	G11J-02/A	-	-	-	G11C 02÷03	-	G11T 02÷03	-	TPC-14
	19	0.042	1,07	0.416	10,5	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	0.430	10,9	0.393÷0.472	10,5÷12,0	G11J-03	-	-	-	-	-	-	-	-
5/8" (15,9)	14	0.083	2,11	0.459	11,7	0.452÷0.512	11,5÷13,0	G11J-04	-	-	-	-	-	-	-	-
	15	0.072	1,83	0.481	12,2	-	-	-	-	-	-	-	-	-	-	-
	16	0.065	1,65	0.495	12,6	0.492÷0.551	12,5÷14,0	G11J-1	-	-	-	G11C 04÷2	-	G11T 04÷2	-	TPC-18
	18	0.049	1,24	0.527	13,4	-	-	-	-	-	-	-	-	-	-	-
	19	0.042	1,07	0.541	13,7	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	0.555	14,1	0.551÷0.610	14,0÷15,5	G11J-2	-	-	-	-	-	-	-	-
	22	0.028	0,71	0.569	14,5	-	-	-	-	-	-	-	-	-	-	-
3/4" (19,0)	12	0.109	2,77	0.532	13,4	0.531÷0.610	13,5÷15,5	G11J-2/A	0.531÷0.610	13,5÷15,5	G11J-2/A	-	-	-	-	-
	13	0.095	2,41	0.560	14,2	-	-	-	-	-	-	-	-	-	-	-
	14	0.083	2,11	0.584	14,8	0.571÷0.650	14,5÷16,5	G11J-3	0.571÷0.650	14,5÷16,5	G11J-3	-	-	-	-	-
	15	0.072	1,83	0.606	15,3	-	-	-	-	-	-	-	-	-	-	-
	16	0.065	1,65	0.620	15,7	0.610÷0.689	15,5÷17,5	G11J-4	-	-	-	G11C 2/A÷8	G11C 2/A÷8	G11T 2/A÷8	G21T 2/A÷8	TPC-21
	18	0.049	1,24	0.652	16,5	-	-	-	-	-	-	-	-	-	-	-
	19	0.042	1,07	0.666	16,8	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	0.680	17,2	0.669÷0.748	17,0÷19,0	G11J-5	-	-	-	-	-	-	-	-
	22	0.028	0,71	0.694	17,6	-	-	-	-	-	-	-	-	-	-	-
7/8" (22,2)	12	0.109	2,77	0.657	16,6	0.650÷0.728	16,5÷18,5	G11J-6	-	-	-	-	-	-	-	-
	14	0.083	2,11	0.709	18,0	-	-	-	-	-	-	-	-	-	-	-
	16	0.065	1,65	0.745	18,9	0.728÷0.807	18,5÷20,5	G11J-7	-	-	-	G11C 2/A÷8	-	G11T 2/A÷8	-	TPC-25
	18	0.049	1,24	0.777	19,7	-	-	-	-	-	-	-	-	-	-	-
	19	0.042	1,07	0.791	20,0	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	0.805	20,4	0.787÷0.866	20,0÷22,0	G11J-8	-	-	-	-	-	-	-	-
	22	0.028	0,71	0.819	20,8	-	-	-	-	-	-	-	-	-	-	-
1" (25,4)	10	0.134	3,40	0.732	18,6	-	-	-	0.728÷0.846	18,5÷21,5	G21J-8/A	-	-	-	-	-
	12	0.109	2,77	0.782	19,8	-	-	-	-	-	-	-	-	-	-	-
	13	0.095	2,41	0.810	20,6	0.767÷0.846	19,5÷21,5	G11J-9	0.768÷0.886	19,5÷22,5	G21J-9	-	-	-	-	-
	14	0.083	2,11	0.834	21,2	-	-	-	-	-	-	-	-	-	-	-
	15	0.072	1,83	0.856	21,7	0.827÷0.906	21,0÷23,0	G11J-9/A	0.827÷0.945	21,0÷24,0	G21J-9/A	-	-	-	-	-
	16	0.065	1,65	0.870	22,1	-	-	-	-	-	-	G11C 8/A÷11	G21C 8/A÷11	G11T 8/A÷20	G21T 8/A÷11	TPC-28
	18	0.049	1,24	0.902	22,9	0.866÷0.945	22,0÷24,0	G11J-10	0.866÷0.984	22,0÷25,0	G21J-10	-	-	-	-	-
	19	0.042	1,07	0.916	23,2	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	0.930	23,6	0.925÷1.004	23,5÷25,5	G11J-11	0.925÷1.043	23,5÷26,5	G21J-11	-	-	-	-	-
	22	0.028	0,71	0.944	24,0	-	-	-	-	-	-	-	-	-	-	-

Critical extractions
Reached power limits

Depending on tube material and tube-sheet thickness
Choose bigger size





d_e " mm	Tube sp		d_i		Expansion		Jaw G11J	Expansion		Jaw G21J	Cone		TieRod		Collar TPC		
	B.W.G.	" mm	" mm	" mm	" mm	" mm	Cod.	" mm	" mm	Cod.	Cod.	Cod.	Cod.	Cod.	Cod.		
1.1/4" (31,8)	10	0.134	3,40	0.982	25,0	-	-	-	0.965 ÷ 1.083	24,5 ÷ 27,5	G21J-12	-	-	-	-	-	
	11	0.120	3,05	1.010	25,7	-	-	-	-	-	-	-	-	-	-	-	
	12	0.109	2,77	1.032	26,2	1.043 ÷ 1.122	26,5 ÷ 28,5	G11J-13	1.043 ÷ 1.161	26,5 ÷ 29,5	G21J-13	-	-	-	-	-	
	13	0.095	2,41	1.060	27,0	-	-	-	-	-	-	-	-	-	-	-	
	14	0.083	2,11	1.084	27,6	1.102 ÷ 1.181	28,0 ÷ 30,0	G11J-14	1.102 ÷ 1.220	28,0 ÷ 31,0	G21J-14	G11C 12÷15	G21C 12÷15	G11T 8/A÷20	G21T 12÷15	TPC-34	
	16	0.065	1,65	1.120	28,5	-	-	-	-	-	-	-	-	-	-	-	-
	18	0.049	1,24	1.152	29,3	-	-	-	-	-	-	-	-	-	-	-	-
	19	0.042	1,07	1.166	29,6	-	-	-	-	-	-	-	-	-	-	-	-
	20	0.035	0,89	1.180	30,0	1.161 ÷ 1.240	29,5 ÷ 31,5	G11J-15	1.161 ÷ 1.280	29,5 ÷ 32,5	G21J-15	-	-	-	-	-	-
1.1/2" (38,1)	8	0.165	4,19	1.170	29,7	-	-	-	1.161 ÷ 1.280	29,5 ÷ 32,5	G21J-16	-	-	-	-	-	
	10	0.134	3,40	1.232	31,3	-	-	-	-	-	-	-	-	-	-	-	
	11	0.120	3,05	1.260	32,0	-	-	-	1.240 ÷ 1.358	31,5 ÷ 34,5	G21J-17	-	-	-	-	-	
	12	0.109	2,77	1.282	32,5	-	-	-	-	-	-	-	-	-	-	-	
	13	0.095	2,41	1.310	33,3	-	-	-	-	-	-	-	-	-	-	-	
	14	0.083	2,11	1.334	33,9	-	-	-	1.299 ÷ 1.417	33,0 ÷ 36,0	G21J-18	G11C 16÷20	G21C 16÷20	G11T 8/A÷20	G21T 16÷20	TPC-41	
	15	0.072	1,83	1.356	34,4	-	-	-	-	-	-	-	-	-	-	-	
	16	0.065	1,65	1.370	34,8	1.358 ÷ 1.437	34,5 ÷ 36,5	G11J-19	1.358 ÷ 1.476	34,5 ÷ 37,5	G21J-19	-	-	-	-	-	-
	18	0.049	1,24	1.402	35,6	-	-	-	-	-	-	-	-	-	-	-	-
1.3/4" (44,4)	10	0.134	3,40	0.482	37,6	-	-	-	1.476 ÷ 1.594	37,5 ÷ 40,5	G21J-21	-	-	-	-	-	
	11	0.120	3,05	1.510	38,3	-	-	-	-	-	-	-	-	-	-	-	
	12	0.109	2,77	1.532	38,8	-	-	-	-	-	-	-	-	-	-	-	
	14	0.083	2,11	1.584	40,2	-	-	-	1.555 ÷ 1.673	39,5 ÷ 42,5	G21J-22	-	G21C 21÷26	-	G21T 21÷32	G21 TPC-48	
	16	0.065	1,65	1.620	41,1	-	-	-	-	-	-	-	-	-	-	-	
2" (50,8)	10	0.134	3,40	1.732	44,0	-	-	-	1.713 ÷ 1.831	43,5 ÷ 46,5	G21J-24	-	-	-	-	-	
	12	0.109	2,77	1.782	45,2	-	-	-	-	-	-	-	-	-	-	-	
	13	0.095	2,41	1.810	46,0	-	-	-	1.791 ÷ 1.909	45,5 ÷ 48,5	G21J-25	-	G21C 21÷26	-	G21T 21÷32	G21 TPC-54	
	14	0.083	2,11	1.834	46,6	-	-	-	-	-	-	-	-	-	-	-	
2.1/2" (63,5)	10	0.134	3,40	2.232	56,7	-	-	-	2.224 ÷ 2.343	56,5 ÷ 59,5	G21J-30	-	-	-	-	-	
	11	0.120	3,05	2.260	57,4	-	-	-	-	-	-	-	-	-	-	-	
	12	0.109	2,77	2.282	57,9	-	-	-	-	-	-	-	-	-	-	-	
	14	0.083	2,11	2.334	59,3	-	-	-	2.303 ÷ 2.421	58,5 ÷ 61,5	G21J-31	-	G21C 27÷32	-	G21T 21÷32	G21 TPC-68	
	15	0.072	1,83	2.356	59,8	-	-	-	-	-	-	-	-	-	-	-	
	16	0.065	1,65	2.370	60,2	-	-	-	2.382 ÷ 2.500	60,5 ÷ 63,5	G21J-32	-	-	-	-	-	

Critical extractions Reached power limits Depending on tube material and tube-sheet thickness Choose bigger size

Hydraulically operated continuous tube pullers

Onlypul



Semiautomatic continuous hydraulic tube pullers

Hydraulic tube puller for sizes from 9,5 mm (3/8") to 101,6 mm (4"), for semiautomatic continuous extraction. Suggested for **small scale maintenance work**.

included



Hydraulic Gun

Version

Onlypul ##-EM

Electric

Runpul ##-EM

Onlypul ##-PM

Pneumatic

Runpul ##-PM

Hydraulic Unit

Version

TP 1-H

Manual

TP 10-E

TP 30-E

TP 60-E

Electric

TP 10-P

TP 30-P

TP 60-P

Pneumatic

Runpul



Automatic continuous hydraulic tube pullers

Hydraulic tube puller for sizes from 9,5 mm (3/8") to 101,6 mm (4"), with double jaws, for automatic continuous tube pulling at high speed. Suggested for **large scale maintenance work on condensers and exchangers**.

included



Onlypul Runpul comes complete with:

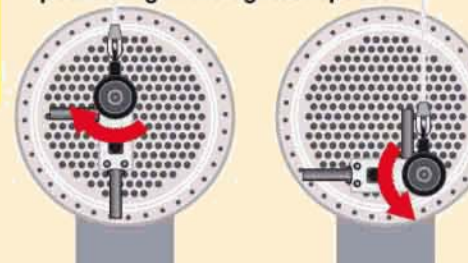
- Carrier case
- Set of spare gaskets
- Set of service spanners
- Instruction booklet



The **USD** (Unclamping System Device) is an **emergency hydraulic device for unblocking jaws jammed on the tube due to rust, etc.**



The **RSR** (revolving support ring) on which the **Onlypul** and **Runpul** is suspended during use allows **optimal positioning in the tightest spaces**.

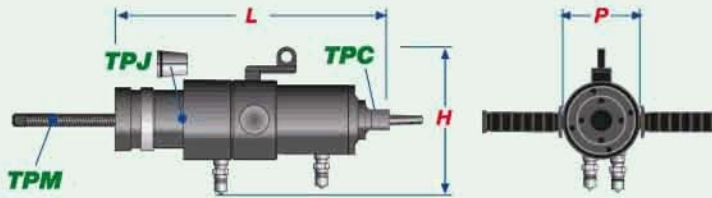


The electric **OPS** (Over Pressure Switch) cuts off hydraulic fluid delivery when the piston reaches the end of its stroke, **preventing unnecessary overpressure in the system**.

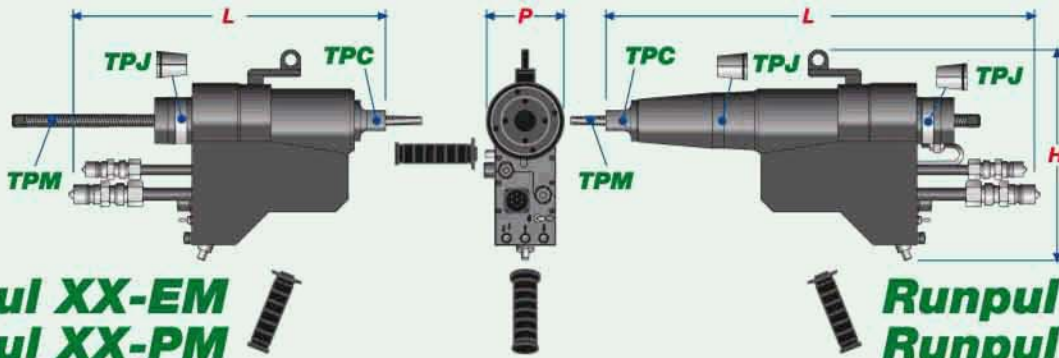


The **RC24** remote control beside the knobs **simplifies and speeds up stub extraction**. The remote control is fitted on both pneumatic and electric versions.

Onlypul XX-HM



Onlypul XX-EM Onlypul XX-PM



Runpul XX-EM Runpul XX-PM

	Hydraulic Gun Cod.	Tube de mm	Power KN Lbs	Speed m/min inches/min	Ram stroke mm "	L mm "	P mm "	H mm "	Weight Kg Lb	Balancer Cod.	Suggested Hydraulic Units	
Manual	Onlypul 15-HM	3/8"÷1.1/8" (9,5÷28,6)	15 33000	-	101,6 4	420 16.6	125 4.9	230 9.1	15 33.1	TPB 15	TP 1-H	
	Onlypul 30-HM	3/8"÷1.1/4" ^{Gas} (9,5÷42,4)	30 66000	-	101,6 4	420 16.6	155 6.1	270 10.7	30 66.2	TPB 30	TP 1-H	
Semiautomatic	Onlypul 15-EM	3/8"÷1.1/8" (9,5÷28,6)	15 33000	-	101,6 4	500 19.7	125 4.9	340 13.4	21 46.2	TPB 15	TP 10-E TP 10-P	
	Onlypul 15-PM											
	Onlypul 30-EM	3/8"÷1.1/4" ^{Gas} (9,5÷42,4)	30 66000	-	101,6 4	500 19.7	155 6.1	430 16.9	38 83.6	TPB 30	TP 10-E TP 10-P	
	Onlypul 30-PM											
	Onlypul 45-EM	1"÷3" (25,4÷76,2)	45 99000	-	50,8 2	510 20.1	190 7.5	430 16.9	55 121.2	TPB 45	TP 30-E TP 30-P	
	Onlypul 45-PM											
Onlypul 60-EM	2"÷4" (50,8÷101,6)	60 132000	-	50,8 2	510 20.1	220 8.7	450 17.7	71 156.5	TPB 60	TP 30-E TP 30-P		
Onlypul 60-PM												
Automatic	Runpul 15-EM	3/8"÷1.1/8" (9,5÷28,6)	15 33000	8 315	101,6 4	690 27.2	124 4.9	340 13.4	26 57.2	TPB 15	TP 30-E TP 60-E TP 30-P TP 60-P	
	Runpul 15-PM											
	Runpul 30-EM	3/8"÷1.1/4" ^{Gas} (9,5÷42,4)	30 66000	4 170	101,6 4	730 28.7	155 6.1	430 16.9	46 101.2	TPB 30	TP 30-E TP 60-E TP 30-P TP 60-P	
	Runpul 30-PM											
	Runpul 45-EM	1"÷3" (25,4÷76,2)	45 99000	3,4 134	50,8 2	740 29.1	190 7.5	430 16.9	70 154.0	TPB 45	TP 30-E TP 60-E TP 30-P TP 60-P	
	Runpul 45-PM											
	Runpul 60-EM	2"÷4" (50,8÷101,6)	60 132000	3 110	50,8 2	750 29.5	220 8.7	450 17.7	96 211.2	TPB 60	TP 30-E TP 60-E TP 30-P TP 60-P	
	Runpul 60-PM											

* On request available also 700 Bar (10000 psi) version

Hydraulically operated continuous tube pullers tools

Onlypul Runpul

Tools



TPM					
de mm	sp B.W.G.	dim mm	dim "	Mandrel	"
				Cod.	
3/8" (9,5)	17 ÷ 19	6,5 ÷ 7,5	0,256 ÷ 0,295	TPM-7	5/16"
	20 ÷ 24	7,5 ÷ 8,5	0,295 ÷ 0,335	TPM-8	
1/2" (12,7)	14 - 16	8,5 ÷ 9,5	0,335 ÷ 0,374	TPM-9	3/8"
	17 - 18	9,5 ÷ 10,5	0,374 ÷ 0,413	TPM-10	
	19 ÷ 21	10,5 ÷ 11,5	0,413 ÷ 0,453	TPM-11	
	24	11,5 ÷ 12,5	0,453 ÷ 0,492	TPM-12	
5/8" (15,9)	16 - 17	12,5 ÷ 13,5	0,492 ÷ 0,531	TPM-13A	1/2"
	19 ÷ 21	13,5 ÷ 14,5	0,531 ÷ 0,571	TPM-14A	
	23 - 24	14,5 ÷ 15,5	0,571 ÷ 0,610	TPM-15A	
3/4" (19,0)	11	12,5 ÷ 13,5	0,492 ÷ 0,531	TPM-13	5/8"
	12 - 13	13,5 ÷ 14,5	0,531 ÷ 0,571	TPM-14	
	14 - 15	14,5 ÷ 15,5	0,571 ÷ 0,610	TPM-15	
	16 - 17	15,5 ÷ 16,5	0,610 ÷ 0,650	TPM-16	
	18 ÷ 20	16,5 ÷ 17,5	0,650 ÷ 0,689	TPM-17	
7/8" (22,2)	14	17,5 ÷ 18,5	0,689 ÷ 0,728	TPM-18S	5/8"
	16 - 17	18,5 ÷ 19,5	0,728 ÷ 0,768	TPM-19S	
	18 - 19	19,5 ÷ 20,5	0,768 ÷ 0,807	TPM-20S	
1" (25,4)	10 - 11	18,5 ÷ 19,5	0,728 ÷ 0,768	TPM-19	3/4"
	12	19,5 ÷ 20,5	0,768 ÷ 0,807	TPM-20	
	13 - 14	20,5 ÷ 21,5	0,807 ÷ 0,846	TPM-21	
	15 - 16	21,5 ÷ 22,5	0,846 ÷ 0,886	TPM-22	
	18	22,5 ÷ 23,5	0,886 ÷ 0,925	TPM-23	
3/4"Gas (26,9)	13	21,5 ÷ 22,5	0,846 ÷ 0,886	TPM-22G	3/4"
	14 - 15	22,5 ÷ 23,5	0,886 ÷ 0,925	TPM-23G	
	16 - 17	23,5 ÷ 24,5	0,925 ÷ 0,965	TPM-24G	
	19 ÷ 21	24,5 ÷ 25,4	0,965 ÷ 1,004	TPM-25G	
1.1/4" (31,8)	10	24,5 ÷ 25,5	0,965 ÷ 1,004	TPM-25	1"
	11 - 12	25,4 ÷ 26,5	1,004 ÷ 1,043	TPM-26	
	13	26,5 ÷ 27,5	1,043 ÷ 1,083	TPM-27	
	14 - 15	27,5 ÷ 28,5	1,083 ÷ 1,122	TPM-28	
	16 ÷ 18	28,5 ÷ 29,5	1,122 ÷ 1,161	TPM-29	
	19 ÷ 22	29,5 ÷ 30,5	1,161 ÷ 1,201	TPM-30	
1"Gas (33,7)	9	25,5 ÷ 26,5	1,004 ÷ 1,043	TPM-26G	1"
	10	26,5 ÷ 27,5	1,043 ÷ 1,083	TPM-27G	
	11 - 12	27,5 ÷ 28,5	1,083 ÷ 1,122	TPM-28G	
	13 - 14	28,5 ÷ 29,5	1,122 ÷ 1,161	TPM-29G	

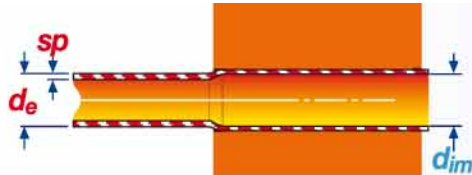
TPM					
de mm	sp B.W.G.	dim mm	dim "	Mandrel	"
				Cod.	
1.1/2" (38,1)	10 - 11	31,5 ÷ 32,5	1,240 ÷ 1,280	TPM-32	1"
	12 - 13	32,5 ÷ 33,5	1,280 ÷ 1,319	TPM-33	
	14	33,5 ÷ 34,5	1,319 ÷ 1,358	TPM-34	
	15 ÷ 17	34,5 ÷ 35,5	1,358 ÷ 1,398	TPM-35	
	18 ÷ 20	35,5 ÷ 36,5	1,398 ÷ 1,437	TPM-36	
	21 ÷ 24	36,5 ÷ 37,5	1,437 ÷ 1,476	TPM-37	
1.1/4"Gas (42,4)	12	36,5 ÷ 37,5	1,437 ÷ 1,476	TPM-37G	1"
	13 - 14	37,5 ÷ 38,5	1,476 ÷ 1,516	TPM-38G	
	15 - 16	38,5 ÷ 39,5	1,516 ÷ 1,555	TPM-39G	
	17 ÷ 19	39,5 ÷ 40,5	1,555 ÷ 1,594	TPM-40G	
1.3/4" (44,4)	10 - 11	37,5 ÷ 38,5	1,476 ÷ 1,516	TPM-38/44	1"
	12	38,5 ÷ 39,5	1,516 ÷ 1,555	TPM-39/44	
	13 - 14	39,5 ÷ 40,5	1,555 ÷ 1,594	TPM-40/44	
	15 - 16	40,5 ÷ 41,5	1,594 ÷ 1,634	TPM-41/44	
	18 - 19	41,5 ÷ 42,5	1,634 ÷ 1,673	TPM-42/44	
1.1/2"Gas (48,3)	20 ÷ 24	42,5 ÷ 43,5	1,673 ÷ 1,713	TPM-43/44	1"
	11 - 12	42,5 ÷ 43,5	1,673 ÷ 1,713	TPM-43G	
	13 - 14	43,5 ÷ 44,5	1,713 ÷ 1,752	TPM-44G	
	15 ÷ 17	44,5 ÷ 45,5	1,752 ÷ 1,791	TPM-45G	
2" (50,8)	18 - 19	45,5 ÷ 46,5	1,791 ÷ 1,831	TPM-46G	1"
	10	43,5 ÷ 44,5	1,713 ÷ 1,752	TPM-44/51	
	11 - 12	44,5 ÷ 45,5	1,752 ÷ 1,791	TPM-45/51	
	13	45,5 ÷ 46,5	1,791 ÷ 1,831	TPM-46/51	
	14 - 15	46,5 ÷ 47,5	1,831 ÷ 1,870	TPM-47/51	
2.1/4" (57,1)	16 ÷ 18	47,5 ÷ 48,5	1,870 ÷ 1,909	TPM-48/51	1.1/2"
	19 ÷ 22	48,5 ÷ 49,5	1,909 ÷ 1,949	TPM-49/51	
	9 - 10	49,5 ÷ 50,5	1,949 ÷ 1,988	TPM-50/57	
	11	50,5 ÷ 51,5	1,988 ÷ 2,028	TPM-51/57	
2"Gas (60,3)	12 - 13	51,5 ÷ 52,5	2,028 ÷ 2,067	TPM-52/57	1.1/2"
	7	50,5 ÷ 51,5	1,988 ÷ 2,028	TPM-51G	
	8	51,5 ÷ 52,5	2,028 ÷ 2,067	TPM-52G	
2.1/2" (63,5)	9	52,5 ÷ 53,5	2,067 ÷ 2,106	TPM-53G	1.1/2"
	7	53,5 ÷ 54,5	2,106 ÷ 2,146	TPM-54/63	
	8	54,5 ÷ 55,5	2,146 ÷ 2,185	TPM-55/63	
	9	55,5 ÷ 56,5	2,185 ÷ 2,224	TPM-56/63	
	10	56,5 ÷ 57,5	2,224 ÷ 2,264	TPM-57/63	

Onlypul 15
Runpul 15

Onlypul 30
Runpul 30

Onlypul 45
Runpul 45

Onlypul 60
Runpul 60



TPJ for Onlypul Jaw



Set-TPJ for Runpul Set of jaws



TPC for Onlypul / Runpul Collar

d_e "	Onlypul 15 Runpul 15 Cod.	Onlypul 30 Runpul 30 Cod.	Onlypul 45 Runpul 45 Cod.
3/8"	TPJ/15-1	TPJ/30-1	-
1/2"	TPJ/15-2	TPJ/30-2	-
5/8"	TPJ/15-3	TPJ/30-3	-
3/4"	TPJ/15-4	TPJ/30-4	-
7/8"	TPJ/15-4/A	TPJ/30-4/A	-
1"	TPJ/15-5	TPJ/30-5	TPJ/45-5
3/4"Gas	-	TPJ/30-6	TPJ/45-6
1.1/4"	-	TPJ/30-7	TPJ/45-7
1"Gas	-	TPJ/30-8	TPJ/45-8
1.1/2"	-	TPJ/30-9	TPJ/45-9

d_e "	Onlypul 15 Runpul 15 Cod.	Onlypul 30 Runpul 30 Cod.	Onlypul 45 Runpul 45 Cod.
3/8"	TPC-11	TPC-11	-
1/2"	TPC-14	TPC-14	-
5/8"	TPC-18	TPC-18	-
3/4"	TPC-21	TPC-21	-
7/8"	TPC-25	TPC-25	-
1"	TPC-28	TPC-28	TPC-28
3/4"Gas	-	TPC-31	TPC-31
1.1/4"	-	TPC-34	TPC-34
1"Gas	-	TPC-37	TPC-37
1.1/2"	-	TPC-41	TPC-41

d_e "	Onlypul 30 Runpul 30 Cod.	Onlypul 45 Runpul 45 Cod.	Onlypul 60 Runpul 60 Cod.
1.1/4"Gas	TPJ/30-10	TPJ/45-10	-
1.3/4"	-	TPJ/45-11	-
1.1/2"Gas	-	TPJ/45-12	-
2"	-	TPJ/45-13	TPJ/60-13
2.1/4"	-	TPJ/45-14	TPJ/60-14
2"Gas	-	TPJ/45-15	TPJ/60-15
2.1/2"	-	TPJ/45-16	TPJ/60-16
3"	-	TPJ/45-17	TPJ/60-17
3.1/2"	-	-	TPJ/60-18
4"	-	-	TPJ/60-19

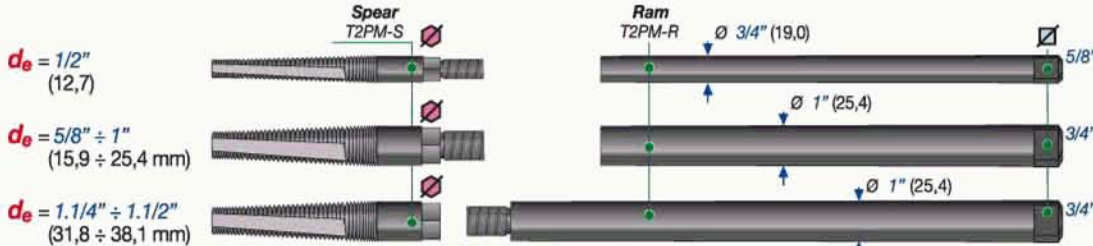
d_e "	Onlypul 30 Runpul 30 Cod.	Onlypul 45 Runpul 45 Cod.	Onlypul 60 Runpul 60 Cod.
1.1/4"Gas	TPC-44	TPC-44	-
1.3/4"	-	TPC/45-48	-
1.1/2"Gas	-	TPC/45-53	-
2"	-	TPC/45-56	TPC/60-56
2.1/4"	-	TPC/45-60	TPC/60-60
2"Gas	-	TPC/45-63	TPC/60-63
2.1/2"	-	TPC/45-66	TPC/60-66
3"	-	TPC/45-80	TPC/60-80
3.1/2"	-	-	TPC/60-93
4"	-	-	TPC/60-105



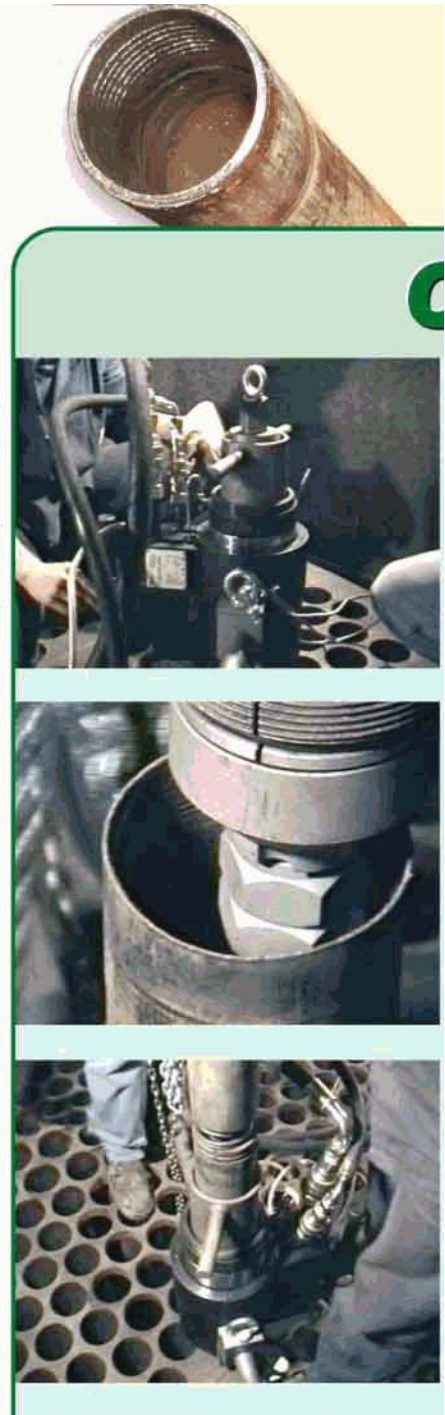
Hydraulically operated tube pullers tools

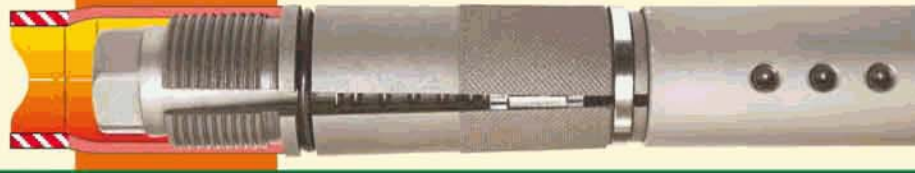
Onlypul

T2PM two pieces mandrel for size from 1/2" (12,7mm) to 1.1/2" (38,1mm)



de mm	sp B.W.G.	dim		T2PM		TPJ	TPC
		mm	"	Spear Cod.	Ram Cod.	Jaw Cod.	Collar Cod.
1/2" (12,7)	14 - 16	8,5 ÷ 9,5	0,335 ÷ 0,374	T2PM-S9			
	17 - 18	9,5 ÷ 10,5	0,374 ÷ 0,413	T2PM-S10			
	19 ÷ 21	10,5 ÷ 11,5	0,413 ÷ 0,453	T2PM-S11	T2PM-R9÷12	TPJ/15-4 TPJ/30-4	TPC/21
	24	11,5 ÷ 12,5	0,453 ÷ 0,492	T2PM-S12			
5/8" (15,9)	16 - 17	12,5 ÷ 13,5	0,492 ÷ 0,531	T2PM-S13			
	19 ÷ 21	13,5 ÷ 14,5	0,531 ÷ 0,571	T2PM-S14	T2PM-R13÷24	TPJ/15-5 TPJ/30-5	TPC/28
	23 - 24	14,5 ÷ 15,5	0,571 ÷ 0,610	T2PM-S15			
3/4" (19,0)	11	12,5 ÷ 13,5	0,492 ÷ 0,531	T2PM-S13			
	12 - 13	13,5 ÷ 14,5	0,531 ÷ 0,571	T2PM-S14			
	14 - 15	14,5 ÷ 15,5	0,571 ÷ 0,610	T2PM-S15	T2PM-R13÷24	TPJ/15-5 TPJ/30-5	TPC/28
	16 - 17	15,5 ÷ 16,5	0,610 ÷ 0,650	T2PM-S16			
	18 ÷ 20	16,5 ÷ 17,5	0,650 ÷ 0,689	T2PM-S17			
	21 ÷ 24	17,5 ÷ 18,5	0,689 ÷ 0,728	T2PM-S18			
7/8" (22,2)	14	17,5 ÷ 18,5	0,689 ÷ 0,728	T2PM-S18			
	16 - 17	18,5 ÷ 19,5	0,728 ÷ 0,768	T2PM-S19	T2PM-R13÷24	TPJ/15-5 TPJ/30-5	TPC/28
	18 - 19	19,5 ÷ 20,5	0,768 ÷ 0,807	T2PM-S20			
1" (25,4)	10 - 11	18,5 ÷ 19,5	0,728 ÷ 0,768	T2PM-S19			
	12	19,5 ÷ 20,5	0,768 ÷ 0,807	T2PM-S20			
	13 - 14	20,5 ÷ 21,5	0,807 ÷ 0,846	T2PM-S21	T2PM-R13÷24	TPJ/15-5 TPJ/30-5	TPC/28
	15 - 16	21,5 ÷ 22,5	0,846 ÷ 0,886	T2PM-S22			
	18	22,5 ÷ 23,5	0,886 ÷ 0,925	T2PM-S23			
	19 - 20	23,5 ÷ 24,5	0,925 ÷ 0,965	T2PM-S24			
1.1/4" (31,8)	10	24,5 ÷ 25,5	0,965 ÷ 1,004	T2PM-S25			
	11 - 12	25,4 ÷ 26,5	1,004 ÷ 1,043	T2PM-S26			
	13	26,5 ÷ 27,5	1,043 ÷ 1,083	T2PM-S27	T2PM-R25÷48	TPJ/30-5	TPC/35
	14 - 15	27,5 ÷ 28,5	1,083 ÷ 1,122	T2PM-S28			
	16 ÷ 18	28,5 ÷ 29,5	1,122 ÷ 1,161	T2PM-S29			
	19 ÷ 22	29,5 ÷ 30,5	1,161 ÷ 1,201	T2PM-S30			
	23 - 24	30,5 ÷ 31,5	1,201 ÷ 1,240	T2PM-S31			
1.1/2" (38,1)	10 - 11	31,5 ÷ 32,5	1,240 ÷ 1,280	T2PM-S32			
	12 - 13	32,5 ÷ 33,5	1,280 ÷ 1,319	T2PM-S33			
	14	33,5 ÷ 34,5	1,319 ÷ 1,358	T2PM-S34	T2PM-R25÷48	TPJ/30-5	TPC/41
	15 ÷ 17	34,5 ÷ 35,5	1,358 ÷ 1,398	T2PM-S35			
	18 ÷ 20	35,5 ÷ 36,5	1,398 ÷ 1,437	T2PM-S36			
	21 ÷ 24	36,5 ÷ 37,5	1,437 ÷ 1,476	T2PM-S37			





Onlypul Runpul

TPM-K Quick gripping extraction mandrel for size from 1.1/2" (38,1mm) to 4" (101,6mm)

Maus Italia **exclusive design** mandrel, to be used in combination with the semi-automatic pulling gun **Onlypul** or **Runpul**, allows a rapid anchoring to the tube (**No need of impact tool or keys**)



Extension of the quick gripping attachment typical of the **Grippul** even in continuous tube pulling ≥ 38.1 mm (1.1/2") with **Runpul 30**, **Runpul 45** and **Runpul 60**



Quick tool attaching: the operator no longer has to screw and unscrew the end in the tube

Quick tube gripping operation

Low wear limited to replacement of the jaws

d_e mm	sp B.W.G.	d_{im} mm	d_{im} "	Mandrel Cod.	Cone Cod.	Jaw Cod.	Ram Cod.	\varnothing "
1.1/2" (38,1)	10 - 11	31,5 ÷ 32,5	1.240 ÷ 1.280	TPM-K-32		JK-32		
	12 - 13	32,5 ÷ 33,5	1.280 ÷ 1.319	TPM-K-33		JK-33		
	14	33,5 ÷ 34,5	1.319 ÷ 1.358	TPM-K-34		JK-34		
	15 ÷ 17	34,5 ÷ 35,5	1.358 ÷ 1.498	TPM-K-35	CK-32÷37	JK-35	RK-32÷37	1.1/4"
	18 ÷ 20	35,5 ÷ 36,5	1.498 ÷ 1.437	TPM-K-36		JK-36		
	21 ÷ 24	36,5 ÷ 37,5	1.437 ÷ 1.476	TPM-K-37		JK-37		
1.3/4" (44,4)	10 - 11	37,5 ÷ 38,5	1.476 ÷ 1.516	TPM-K-38		JK-38		
	12	38,5 ÷ 39,5	1.516 ÷ 1.555	TPM-K-39		JK-39		
	13 - 14	39,5 ÷ 40,5	1.555 ÷ 1.594	TPM-K-40		JK-40		
	15 - 16	40,5 ÷ 41,5	1.594 ÷ 1.634	TPM-K-41	CK-38÷43	JK-41	RK-38÷43	1.1/4"
	18 - 19	41,5 ÷ 42,5	1.634 ÷ 1.673	TPM-K-42		JK-42		
	20 ÷ 24	42,5 ÷ 43,5	1.673 ÷ 1.713	TPM-K-43		JK-43		
2" (50,8)	10	43,5 ÷ 44,5	1.713 ÷ 1.752	TPM-K-44		JK-44		
	11 - 12	44,5 ÷ 45,5	1.752 ÷ 1.791	TPM-K-45		JK-45		
	13	45,5 ÷ 46,5	1.791 ÷ 1.831	TPM-K-46		JK-46		
	14 - 15	46,5 ÷ 47,5	1.831 ÷ 1.870	TPM-K-47	CK-44÷49	JK-47	RK-44÷49	1.1/4"
	16 ÷ 18	47,5 ÷ 48,5	1.870 ÷ 1.909	TPM-K-48		JK-48		
	19 ÷ 22	48,5 ÷ 49,5	1.909 ÷ 1.949	TPM-K-49		JK-49		
2.1/4" (57,1)	9 - 10	49,5 ÷ 50,5	1.949 ÷ 1.988	TPM-K-50		JK-50		
	11	50,5 ÷ 51,5	1.988 ÷ 2.028	TPM-K-51	CK-50÷52	JK-51	RK-50÷52	1.1/2"
	12 - 13	51,5 ÷ 52,5	2.028 ÷ 2.067	TPM-K-52		JK-52		
2.1/2" (63,5)	7	53,5 ÷ 54,5	2.106 ÷ 2.146	TPM-K-54		JK-54		
	8	54,5 ÷ 55,5	2.146 ÷ 2.185	TPM-K-55		JK-55		
	9	55,5 ÷ 56,5	2.185 ÷ 2.224	TPM-K-56	CK-54÷57	JK-56	RK-54÷57	1.1/2"
	10	56,5 ÷ 57,5	2.224 ÷ 2.264	TPM-K-57		JK-57		
3" (76,2)	7	66,5 ÷ 67,5	2.618 ÷ 2.657	TPM-K-67		JK-67		
	8	67,5 ÷ 68,5	2.657 ÷ 2.697	TPM-K-68		JK-68		
	9 - 10	68,5 ÷ 69,5	2.697 ÷ 2.736	TPM-K-69	CK-67÷70	JK-69	RK-67÷70	1.3/4"
	11	69,5 ÷ 70,5	2.736 ÷ 2.776	TPM-K-70		JK-70		
3.1/2" (88,9)	6	78,5 ÷ 79,5	3.091 ÷ 3.130	TPM-K-79		JK-79		
	7	79,5 ÷ 80,5	3.130 ÷ 3.169	TPM-K-80		JK-80		
	8 - 9	80,5 ÷ 81,5	3.169 ÷ 3.209	TPM-K-81	CK-79÷82	JK-81	RK-79÷82	1.3/4"
	10	81,5 ÷ 82,5	3.209 ÷ 3.248	TPM-K-82		JK-82		
4" (101,6)	6	91,5 ÷ 92,5	3.602 ÷ 3.642	TPM-K-92		JK-92		
	7 - 8	92,5 ÷ 93,5	3.642 ÷ 3.681	TPM-K-93		JK-93		
	9	93,5 ÷ 94,5	3.681 ÷ 3.720	TPM-K-94	CK-92÷95	JK-94	RK-92÷95	1.3/4"
	10	94,5 ÷ 95,5	3.720 ÷ 3.760	TPM-K-95		JK-95		

Onlypul 30
Runpul 30

Onlypul 45
Runpul 45

Onlypul 60
Runpul 60



Power unit

Flexibility and economy of use

High quality of the maintenance

Tubes sizes extractable (up to) 101,6 mm (4")

Speed of extraction 8mt/min (26 Ft/min)

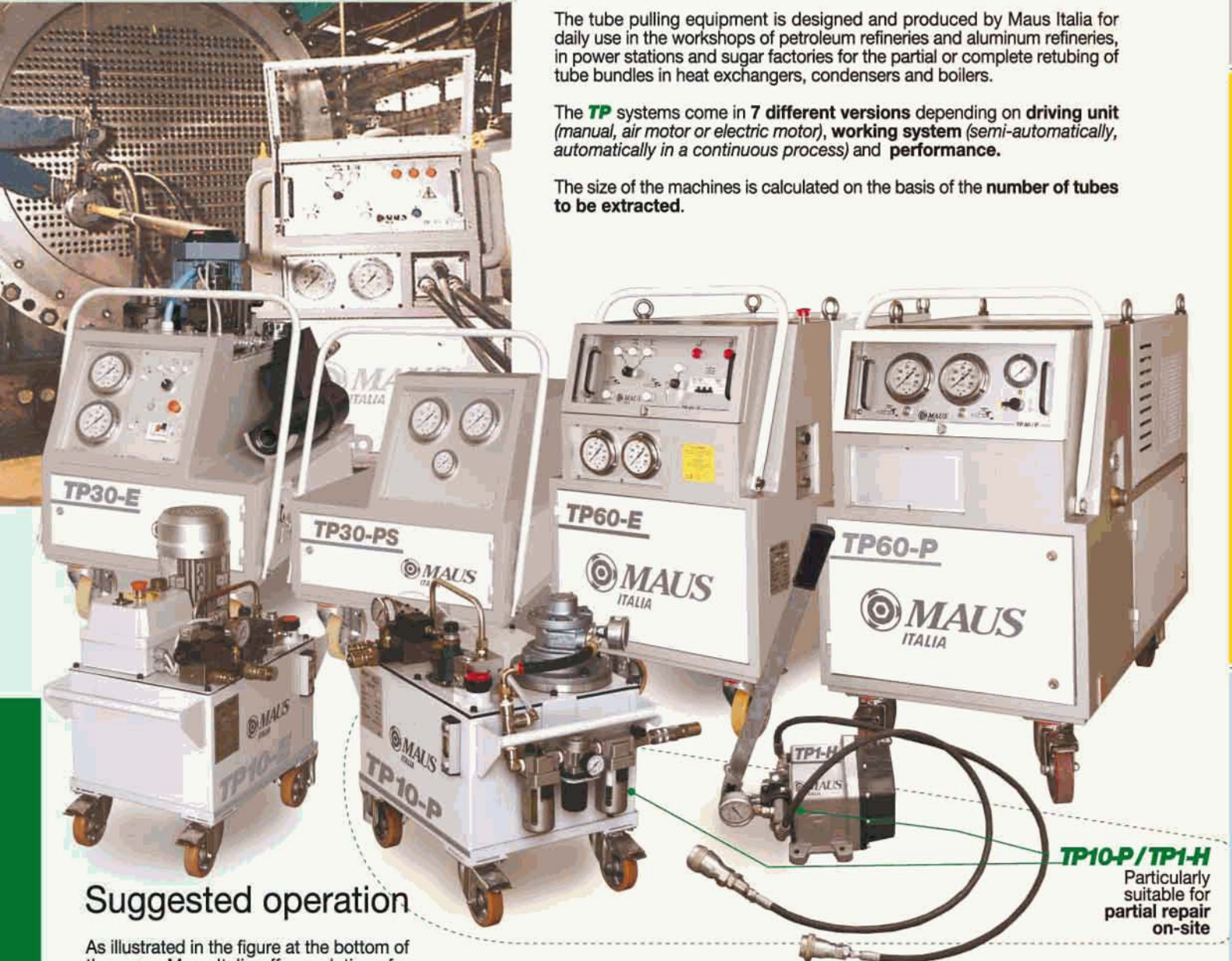
TP

Unit for the continuous pulling of tubes from 12,7÷101,6 mm (1/2" to 4")

The tube pulling equipment is designed and produced by Maus Italia for daily use in the workshops of petroleum refineries and aluminum refineries, in power stations and sugar factories for the partial or complete retubing of tube bundles in heat exchangers, condensers and boilers.

The **TP** systems come in **7 different versions** depending on **driving unit** (manual, air motor or electric motor), **working system** (semi-automatically, automatically in a continuous process) and **performance**.

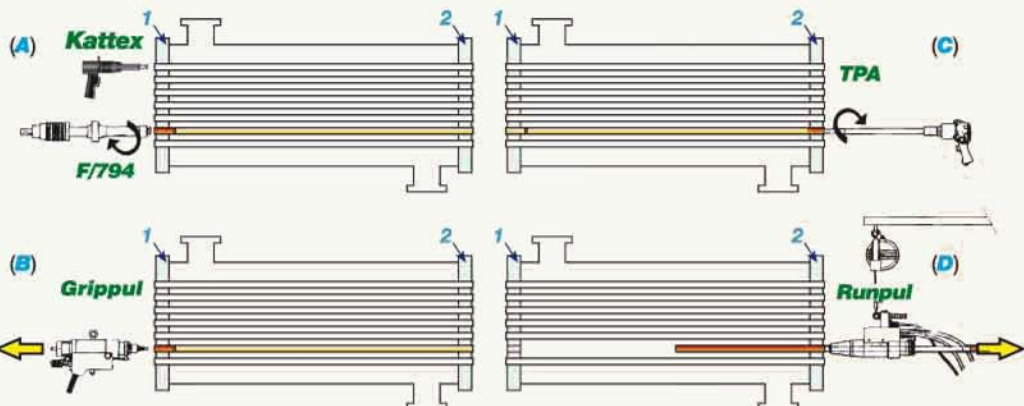
The size of the machines is calculated on the basis of the **number of tubes to be extracted**.



Suggested operation

As illustrated in the figure at the bottom of the page, Maus Italia offers solutions for dealing with the problem of dismantling tube bundles in increasingly rapid and convenient ways thanks to a series of accessories capable of meeting all needs. The **Kattex** or **F/794** motor powered tube cutters are used to cut the tube to be extracted (A).

Meanwhile it is possible to work on the opposite tube sheet using the **Onlypul** continuous semiautomatic tube puller or the **Runpul** (C and D) automatic version. After the tube has been cut, the **Grippul** is used to proceed with rapid extraction (6 per minute) of the stubs (B). The hydraulic units are connected rapidly to all the tube pullers by a unified connection system.



MTP

Possible combinations between hydraulic gun and power unit

Manual equipment

Hydraulic Gun
Cod.

Power unit
Cod.

Set
Cod.

Onlypul - HM



TP1-H



MTP1H-OM

Grippul - E

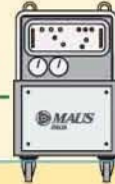


TP10-E



MTP10-GE

TP60-E



MTP60-GE

Onlypul - EM



TP10-E



MTP10-OE

TP30-E



MTP30-OE

Runpul - EM



TP30-E



MTP30-RE

TP60-E



MTP60-RE

Grippul - P



TP10-P



MTP10-GP

TP60-P



MTP60-GP

Onlypul - PM



TP10-P



MTP10-OP

TP30-PS



MTP30-OP

Runpul - PM



TP30-PS



MTP30-RP

TP60-P



MTP60-RP

Electric equipment

Pneumatic equipment

Power unit



TP1-H

Hand pump

Model	Max. pressure		Oil flow rate		Dimensions			Weight				
	bar	psi	Lt/ciclo	US gpm	Width mm	Depth mm	Highth mm	Kg	Lb			
TP1-H	300	4350	0,025	0.007	350	13.8"	200	7.9"	230	9.1"	9,5	21



TP10-E

Semi-automatic
Electrical
hydraulic pump unit

Model	Max. * pressure		Oil flow rate		Power supply	Remote control power supply	Dimensions			Weight							
	bar	psi	Lt/min (bar)	US gpm (psi)			Width mm	Depth mm	Highth mm	with oil		without oil		IP			
TP10-E	350	5075	12 (0÷70) 0,9 (70÷350)	3.17 (0÷1015 psi) 0.24 (1015÷5075 psi)	1,1Kw-230/400V-50/60Hz-3Ph	24	680	26.8"	520	20.5"	720	28.3"	82	181	52	115	55



TP10-P

Semi-automatic
Pneumatical
hydraulic pump unit

Model	Max. * pressure		Oil flow rate		Power supply	Air pressure required	Dimensions			Weight						
	bar	psi	Lt/min (bar)	US gpm (psi)			Width mm	Depth mm	Highth mm	with oil		without oil				
TP10-P	350	5075	12 (0÷70) 0,9 (70÷350)	3.17 (0÷1015 psi) 0.24 (1015÷5075 psi)	1,7Kw-7 bar (67Cfm) 1900 Lt/min (67Cfm)	7 100	680	26.8"	460	18.1"	600	23.6"	82	181	52	115

* On request available also 700 Bar (10000 psi) version

TP30-E

Automatic Electrical hydraulic pump unit

Oil filter cartridge

25µ Filter capacity
Replaceable cartridge



Electric motor TEFC

5.5Kw - 230/400V
3Ph - 50/60Hz
4 poles (1500 rpm)
B5 - IP 55

Hydraulic pump

variable capacity:
8÷40 Lt/min
2÷11 US gpm



Pilot lights of the state of the hydraulic gun, manual, automatic and Jaws release pilot light

Extraction pilot lamp indicator

Pressure gauges 350 bar (5075 psi)
oil discharge and return line

Return pilot lamp indicator

Work selector / jaws release

Hand bar

Oil level indicator

The TP30-E is controlled directly by the operator with substantial increase in productivity

Model	Max. pressure		Oil flow rate		Power supply	Remote control power supply	Dimensions			Weight				IP			
	bar	psi	Lt/min	US gpm			Vdc	Width	Depth	High	with oil		without oil				
TP30-E	350	5075	8÷40	2÷11	5,5Kw-230/400V-50/60Hz-3Ph	24	700	27.6"	950	37.4"	1080	42.5"	360	794	270	596	30

TP30-PS

Automatic Pneumatical hydraulic pump unit

Oil filter cartridge

25µ Filter capacity
Replaceable cartridge



Pneumatic motor

4Kw
7 bar (100 psi)
4800 Lt/min (170 Cfm)

Hydraulic pump

variable capacity:
8÷40 Lt/min
2÷11 US gpm



Internal tool box for hydraulic gun

Pressure gauges 350 bar (5075 psi)
oil discharge and return line

Air supply pressure gauge

Internal tool box for working accessories, hydraulic hoses, electric cables c/w lockable door

Hand bar

Oil level indicator

The TP30-PS is controlled directly by the operator with substantial increase in productivity

Model	Max. pressure		Oil flow rate		Power supply	Air pressure required		Dimensions			Weight						
	bar	psi	Lt/min	US gpm		bar	psi	Width	Depth	High	with oil		without oil				
TP30-PS	350	5075	8÷40	2÷11	4Kw - 7 bar (100psi)-4800 Lt/min (170Cfm)	7	100	770	30.3"	920	36.2"	1000	39.4"	220	485	130	287

Power unit

TP60-E

Automatic Electrical hydraulic pump unit PLC managed

High performance, accuracy in assembly and the best components from selected international sub-suppliers are the ingredients that make this unit the leader in the market.

PLC managed
Removable control rack for easy maintenance

Dirty oil filter alarm

Oil temperature alarm

Pilot lights of the state of the hydraulic gun, manual, automatic and Jaws release pilot light

Work selector / jaws release

Return pilot lamp indicator

Extraction pilot lamp indicator

Pressure gauges
350 bar (5075 psi)
oil discharge and return line

Hand bar

Internal tool box
for hydraulic gun
c/w lockable door

Hydraulic pump

variable capacity:
8÷60Lt/min
2÷16US gpm



60 Lt/min - 16 US gpm

Electric motor
TEFC

5.5Kw - 230/400V
3Ph - 50/60Hz
4 poles (1500 rpm)
B5 - IP 55



Oil filter cartridge

25µ Filter capacity
Replaceable cartridge



Manual regulator

Oil flow
Oil pressure



Emergency push button

External fan cooled radiator

Oil level indicator

Internal tool box
for working accessories,
hydraulic hoses,
electric cables
c/w lockable
door

2 speeds extraction

The PLC present on the TP60-E makes it possible for the operator to have two extraction speeds.

The TP60-E is controlled directly by the operator with substantial increase in productivity

Model	Max. pressure		Oil flow rate		Power supply	Remote control power supply	Dimensions			Weight		Weight		IP					
	bar	psi	Lt/min	US gpm			Width	Depth	High	Kg	Lb	with oil	without oil						
TP60-E	350	5075	8÷60	2÷16	5,5 Kw-230/400V-50/60Hz-3Ph	24	700	27.6"	1070	42.1"	1270	50.0"	440	970	440	970	320	706	55

TP60-P

Automatic Pneumatically hydraulic pump unit

Hydraulic pump

variable capacity:

8÷60 Lt/min
2÷16 US gpm



60 Lt/min - 16 US gpm

Pneumatic motor

6,7 Kw
7 bar (100psi)
8000 Lt/min
(283 Cfm)



Oil filter cartridge

25µ Filter capacity
Replaceable cartridge



Hand bar

Pressure gauges
350 bar (5075 psi)
oil discharge and return line

Return pilot pneumatic indicator

Extraction pilot pneumatic indicator

Air supply pressure gauge

Internal tool box
for hydraulic gun
c/w lockable door



Manual regulator

Oil flow
Oil pressure



Oil level indicator



Internal tool box
for working accessories,
hydraulic hoses,
electric cables
c/w lockable door

The **TP60-P** is
controlled
directly by the operator
with substantial
increase
in productivity



Model	Max. pressure		Oil flow rate		Power supply	Air pressure required		Dimensions			Weight						
	bar	psi	Lt/min	US gpm		bar	psi	Width	Depth	Highth	with oil	without oil					
TP60-P	350	5075	8÷60	2÷16	6,7Kw - 7 bar (100psi) - 8000 Lt/min (283Cfm)	7	100	700 mm	27.6"	1070 mm	42.1"	1270 mm	50.0"	410 Kg	904 Lb	290 Kg	640 Lb

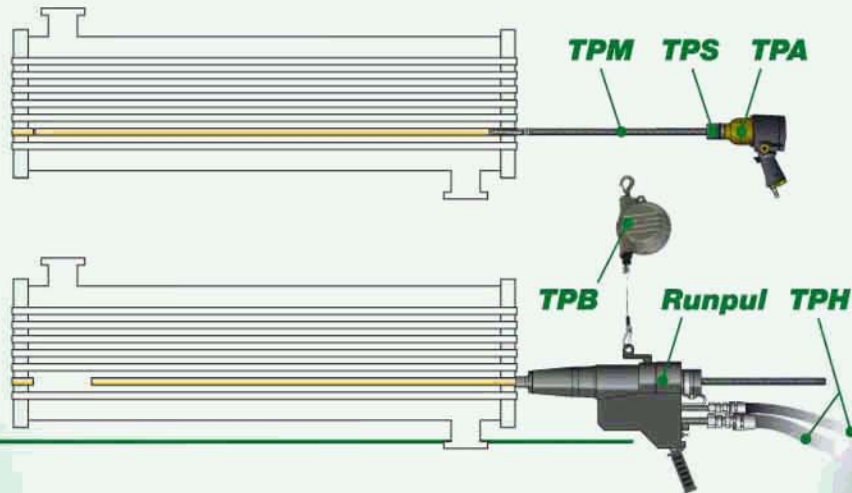
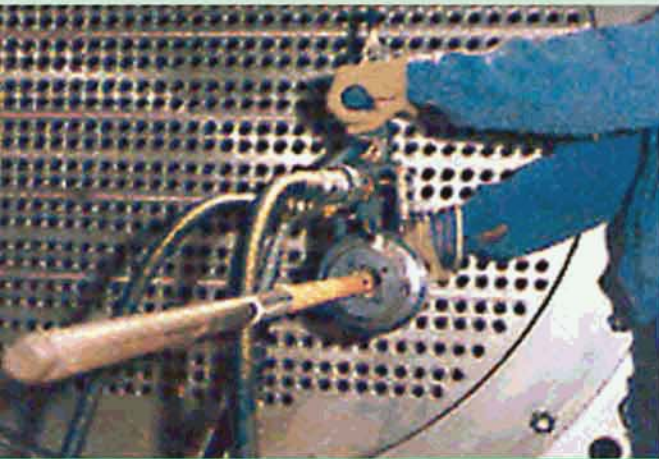


Accessories



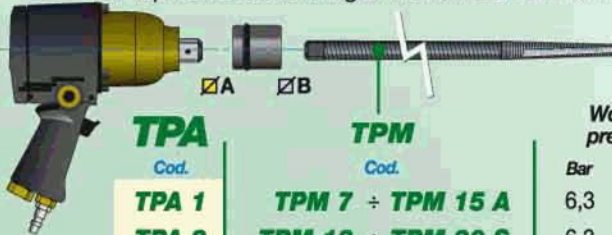
TP

Accessories for **Grippul**, **Onlypul** and **Runpul** pulling equipment



TPA - Impact tool

For rapid and secure fixing of the mandrel **TPM** in the tube before extraction.



TPA

Cod.

TPM

Cod.

Working pressure

Air shank

∅A

Weight

Bar

Psi

"

"

Kg

Lb

TPA 1

TPM 7 ÷ TPM 15 A

6,3

91.4

3/8" Gas

3/4"

5,0

10.8

TPA 2

TPM 13 ÷ TPM 20 S

6,3

91.4

1/2" Gas

1"

6,3

13.8

TPA 3A

TPM 19 ÷ TPM 37

6,3

91.4

1/2" Gas

1"

9,3

20.6

TPA 4

TPM 37 G ÷ TPM 49/51

6,3

91.4

1/2" Gas

1"

15,0

32.9

TPA 5

TP 50/57 ÷ TP 95/102

6,3

91.4

3/4" Gas

1.1/2"

32,0

70.55



TPB - Spring balancer with rapid return

Spring balancer with rapid return for support and balancing of the **Grippul**, **Onlypul** and **Runpul**.

Available in 6 different lifting range capacity.



TPB

Cod.

Lifting range

Kg

Lb

TPB 10

20 ÷ 25

44 ÷ 55

TPB 15

25 ÷ 30

55 ÷ 66

TPB 20

30 ÷ 35

66 ÷ 77

TPB 30

40 ÷ 55

88 ÷ 121

TPB 45

55 ÷ 65

121 ÷ 143

TPB 60

65 ÷ 105

143 ÷ 231



Hydraulic guns

Grippul 11

Onlypul 15 - Runpul 15

Grippul 21

Onlypul 30 - Runpul 30

Onlypul 45 - Runpul 45

Onlypul 60 - Runpul 60

TPS - Socket

Sturdy socket to be mounted between the impact tool **TPA** and the mandrel **TPM**.



TPS

Cod.

TPA

∅A

TPM

∅B

TPS 1B

3/4"

5/16"

TPS 2B

3/4"

3/8"

TPS 3B

3/4"

1/2"

TPS 3A

1"

1/2"

TPS 4

1"

5/8"

TPS 5

1"

3/4"

TPS 6

1"

1"

TPS 6A

1"

1.1/2"

TPS 7

1.1/2"

1"

TPS 8

1.1/2"

1.1/2"

Balanced support arms

Designed by Maus Italia for the vertical heat exchangers (Sugar Plants or Aluminium Refineris), they are suitable for the **positioning and moving** of the stub/tube pullers of the series **Grippul**, **Onlypul** and **Runpul**.
It's guarantee a trouble-free use in total safety for the operator thanks to a system of slides and balances.

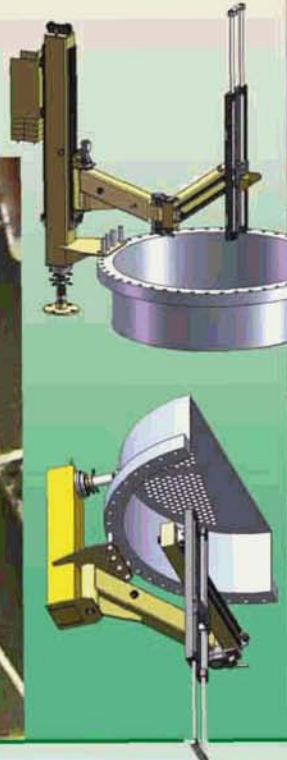
TSA-2000

Suitable for the upper tube-sheet, it is used with the **Runpul** and **Onlypul** equipment for the continuous extraction, and not for single tubes

BSA-2000

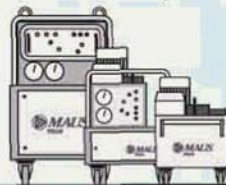
Suitable for the lower tube-sheet, it is used with **Kattex** and **Grippul** equipment for the cutting and extraction of the stub.

They are considered a good investment because they can also be used for managing the rolling motors



TPH - High pressure flexible hydraulic hoses with quick adapter

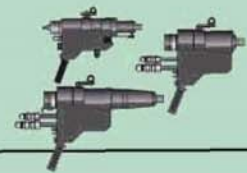
High pressure flexible hydraulic hoses with quick adapter to ensure the proper and safe connection between tube pullers hydraulic guns **Grippul**, **Onlypul** and **Runpul** series and power units chosen.



A



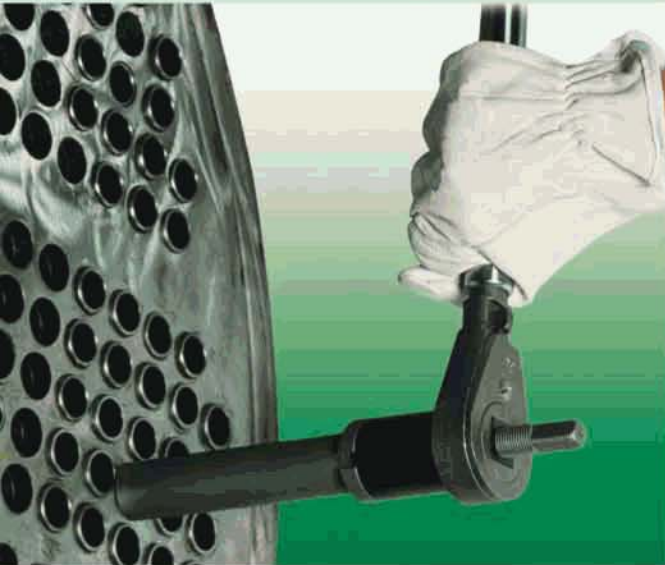
B



TPH Cod.	Power unit	A		O.D. Tubo		B		Hydraulic guns
		mm	“	mm	“	mm	“	
TPH 960	TP10 - TP30	19,0	3/4”	9,5	3/8”	19,0	3/4”	Onlypul
TPH 970	TP10 - TP30	12,7	1/2”	9,5	3/8”	12,7	1/2”	Onlypul
TPH 940	TP10 - TP60	12,7	1/2”	9,5	3/8”	9,5	3/8”	Grippul
TPH 950	TP10 - TP60	19,0	3/4”	9,5	3/8”	12,7	1/2”	Grippul
TPH 1270	TP30 - TP60	12,7	1/2”	12,7	1/2”	12,7	1/2”	Runpul
TPH 1900	TP30 - TP60	19,0	3/4”	19,0	3/4”	19,0	3/4”	Runpul

Manual tool for tube extraction

Cheaptool



Equipment for the manual maintenance of the tube in heat exchangers

Cheaptool is the complete system of Maus Italia products for the manual, low-cost maintenance of tubes in heat exchangers in oil refineries, condensers in electric power stations, boilers, etc..

Cheaptool consists of various products that work in synergy to increase the effectiveness of the work on the tube being replaced. The tube reamer **F/791** starts first by reducing the thickness of the tube to enable the **F/793** to enter the part that has been reamed (therefore offering less resistance) and to expel the tube. The tube collapsing tool **F/792** is used when the thickness of the tube is not high and offers less resistance.

Cheaptool also includes a manual tube cutter **F/790**, a manual extractor **F/800** and a pneumatic hammer **F/789** suggested for use with the above tools.

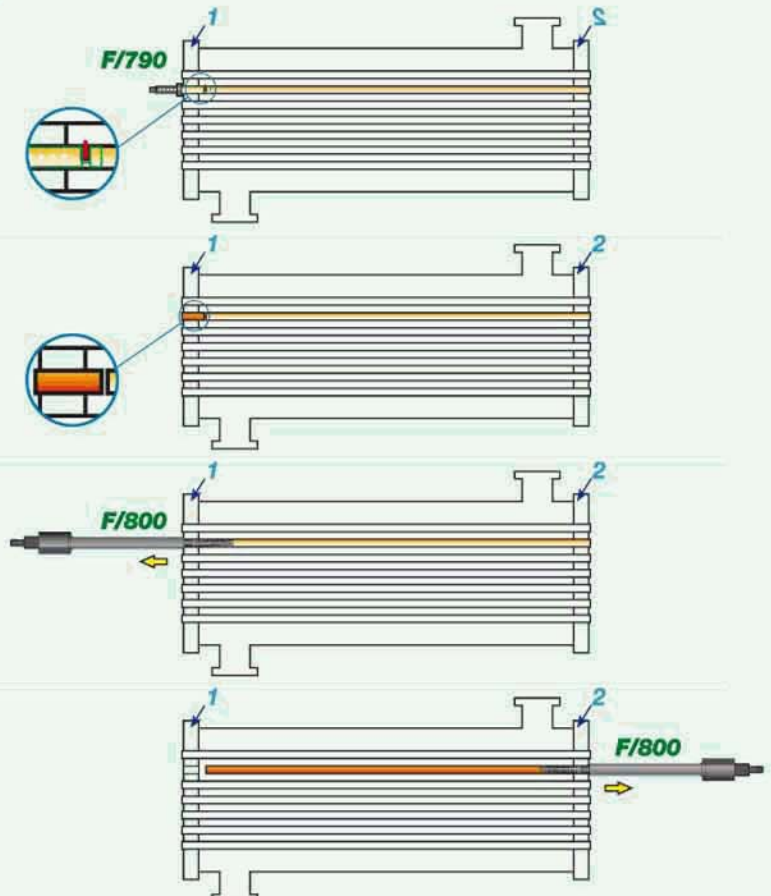
Flexibility and economy of use

High quality of maintenance

Examples of right procedures of tube extraction by **Cheaptool**

1st example of use Cutting and pulling of tube stub and tube

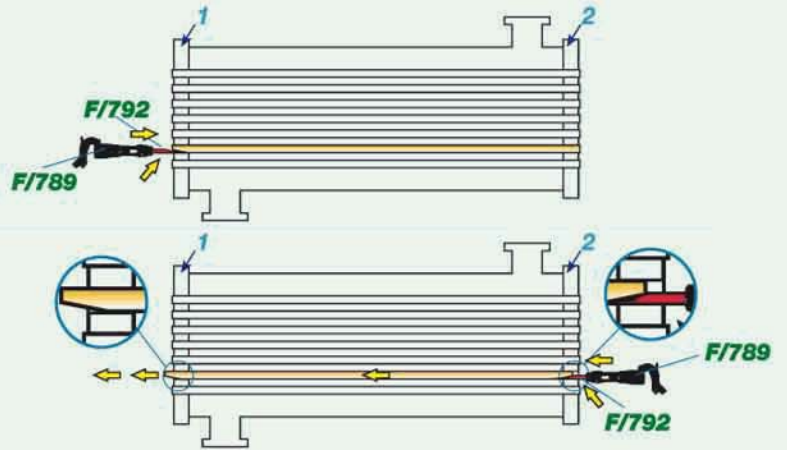
- Work on the first tubesheet with the one-revolution tube cutter **F/790** to cut the tube to be replaced.
- After cutting the tube stub is connected to the first tubesheet and the remaining part of the tube is connected to the second tubesheet.
- Using the **F/800** manual tube puller it is easy to pull out the stub from the first tubesheet quickly and efficiently.
- By repeatedly using the **F/800** manual tube puller on the second tubesheet all the tube can be pulled out easily thus freeing the exchanger.



2nd example of use

Initial extraction and removal for thin-walled tubes

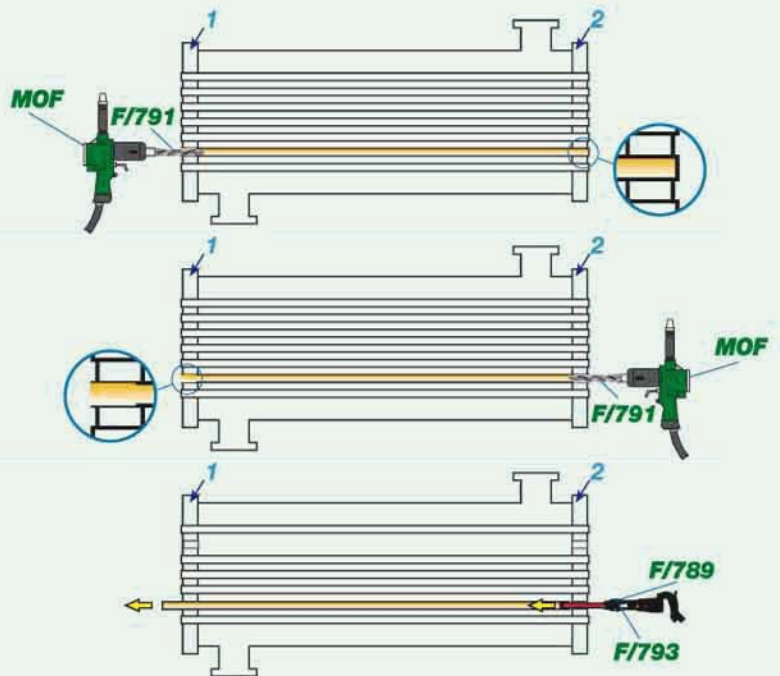
- Work on the first tubesheet with the **F/792** tube collapsing tool using the **F/789** pneumatic hammer to extract the tube.
- Initial extraction on the second tubesheet with the same **F/792** using the **F/789** moves the tube out for the first few millimeters giving sufficient length for a good grip in manual pulling.



3rd example of use

Initial extraction and removal

- Work on the first tubesheet with the **F/791** tube reamer with the **MOF**, reducing the tube thickness to make it easier to strip.
- Work in the same way also for the second tubesheet still using the **F/791** together with the **MOF** thus preparing the tube on both sides for removal.
- Operate the **F/793** tube expeller to move the tube out a few inches giving sufficient length for a good grip in manual pulling.



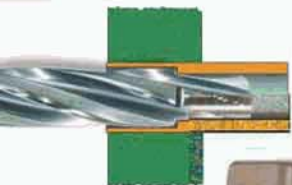
Manual tool for tube extraction

F/791

Tube reamer



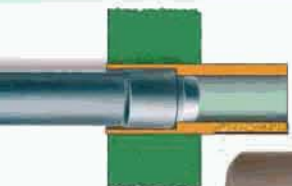
These are high-speed steel reamers, with Morse taper connection and rear tang with diameter ground in accordance with the BWG of the tubes. To use to reduce the thickness of tubes to be replaced, for a depth of about 80% of the thickness of the sheet.



F/793

Tube expeller

Use preferably with a pneumatic hammer.
Standard tang: $\varnothing 17,2 \text{ mm}$ (0.677") x 60,3 mm (2.3/8")



F/792

Tube collapsing tool

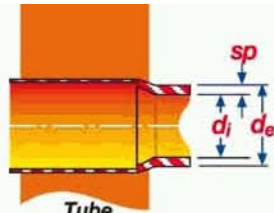
Used for crumpling tubes of non-ferrous alloys or ferrous alloys made lighter with the use of the reamer **F/791** and expelling them from the tube plate. To be used preferably with a pneumatic hammer.
Standard tang: $\varnothing 17,2 \text{ mm}$ (0.677") x 60,3 mm (2.3/8")



F/789

Pneumatic hammer specific for "Cheaptool"





Tube						F/791			F/793			F/792			
de	sp		di		Cod.	L1		L3	Cod.	L2					
mm	B.W.G.	mm	"	mm	"	mm	"	mm	"	mm	"	"			
1/2" (12,7)	-	-	-	-	-	-	-	-	-	F/792-0	196,0	7.717			
5/8" (15,9)	10	3,4	0.134	9,5	0.357	F/791-1			F/793-1						
	11	3,0	0.120	9,8	0.385	F/791-2			F/793-2						
	12	2,8	0.109	10,3	0.407	F/791-3			F/793-3						
	13	2,4	0.095	11,0	0.435	F/791-4	100,0	3.937	2	F/793-4	182,0	7.165	F/792-1	192,0	7.559
	14	2,1	0.083	11,7	0.459	F/791-5			F/793-5						
	15	1,8	0.072	12,2	0.481	F/791-6			F/793-6						
	16	1,6	0.065	12,6	0.495	F/791-7			F/793-7						
	18	1,2	0.049	13,4	0.527	F/791-8			F/793-8						
3/4" (19,0)	10	3,4	0.134	12,2	0.482	F/791-9			F/793-9						
	11	3,0	0.120	12,9	0.510	F/791-10			F/793-10						
	12	2,8	0.109	13,5	0.532	F/791-11			F/793-11						
	13	2,4	0.095	14,2	0.560	F/791-12	120,0	4.724	2	F/793-12	182,0	7.165	F/792-2	194,0	7.638
	14	2,1	0.083	14,8	0.584	F/791-13			F/793-13						
	15	1,8	0.072	15,4	0.606	F/791-14			F/793-14						
	16	1,6	0.065	15,7	0.620	F/791-15			F/793-15						
	18	1,2	0.049	16,6	0.652	F/791-16			F/793-16						
7/8" (22,2)	10	3,4	0.134	15,4	0.607	F/791-17			F/793-17						
	11	3,0	0.120	16,1	0.635	F/791-18			F/793-18						
	12	2,8	0.109	16,7	0.657	F/791-19			F/793-19						
	13	2,4	0.095	17,4	0.685	F/791-20	130,0	5.118	2	F/793-20	182,0	7.165	F/792-3	190,0	7.480
	14	2,1	0.083	18,0	0.709	F/791-21			F/793-21						
	15	1,8	0.072	18,6	0.731	F/791-22			F/793-22						
	16	1,6	0.065	18,9	0.745	F/791-23			F/793-23						
	18	1,2	0.049	19,7	0.777	F/791-24			F/793-24						
1" (25,4)	8	4,2	0.165	17,0	0.670	F/791-25			F/793-25						
	10	3,4	0.134	18,6	0.732	F/791-26			F/793-26						
	11	3,0	0.120	19,3	0.760	F/791-27			F/793-27						
	12	2,8	0.109	19,9	0.782	F/791-28			F/793-28						
	13	2,4	0.095	20,6	0.810	F/791-29	155,0	6.102	3	F/793-29	182,0	7.165	F/792-4	177,0	6.969
	14	2,1	0.083	21,2	0.834	F/791-30			F/793-30						
	15	1,8	0.072	21,7	0.856	F/791-31			F/793-31						
	16	1,6	0.065	22,1	0.870	F/791-32			F/793-32						
1.1/4" (31,8)	8	4,2	0.165	23,4	0.920	F/791-34			F/793-34						
	10	3,4	0.134	24,9	0.982	F/791-35			F/793-35						
	11	3,0	0.120	25,6	1.010	F/791-36			F/793-36						
	12	2,8	0.109	26,2	1.032	F/791-37	165,0	6.496	3	F/793-37	182,0	7.165	F/792-5	164,0	6.457
	13	2,4	0.095	26,9	1.060	F/791-38			F/793-38						
	14	2,1	0.083	27,5	1.084	F/791-39			F/793-39						
	16	1,6	0.065	28,4	1.120	F/791-40			F/793-40						
	1.1/2" (38,1)	8	4,2	0.165	29,7	1.170	F/791-41			F/793-41					
10		3,4	0.134	31,3	1.232	F/791-42			F/793-42						
11		3,0	0.120	32,0	1.260	F/791-43			F/793-43						
12		2,8	0.109	32,6	1.282	F/791-44	180,0	7.087	4	F/793-44	182,0	7.165	F/792-6	165,0	6.496
13		2,4	0.095	33,3	1.310	F/791-45			F/793-45						
14		2,1	0.083	33,9	1.334	F/791-46			F/793-46						
16		1,6	0.065	34,8	1.370	F/791-47			F/793-47						

Manual tool for tube extraction

F/790

One revolution tube cutter

Cheaper tube cutter, adjustable reach from 50,8 mm to 152,4 mm (2" to 6"). The **F/790** was designed for hand use with a tap wrench and its functioning is based on the eccentricity of the blade.



When the **F/790** is inserted, the blade is completely in.



At the beginning of the rotation it perforates the tube.

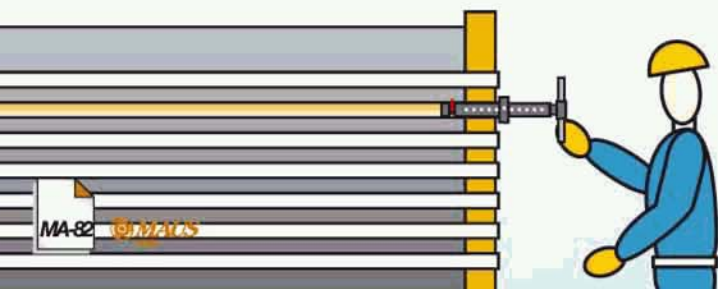


In **one revolution** the tube is completely cut.



Rotating the **F/790** anti-clockwise the blade goes back in so that the cutter can be removed.

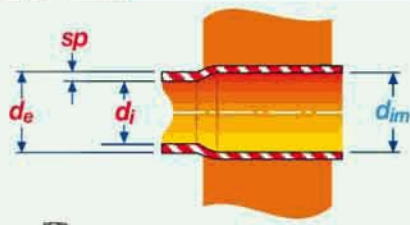
de mm	Tube		F/790 Cod.	Spare bit Cod.	∅			
	B.W.G.	sp				di		
1/2" (12,7)	18	1,2	0.049	10,2	0.402	F/790-1	BIT-F790-1-2	1/4"
	20	0,9	0.035	10,9	0.430	F/790-2		
5/8" (15,9)	14	2,1	0.083	11,7	0.459	F/790-3	BIT-F790-3 BIT-F790-4 BIT-F790-5 BIT-F790-6	3/8"
	16	1,6	0.065	12,6	0.495	F/790-4		
	18	1,2	0.049	13,4	0.527	F/790-5		
	20	0,9	0.035	14,1	0.555	F/790-6		
3/4" (19,0)	14	2,1	0.083	14,8	0.584	F/790-7	BIT-F790-7 BIT-F790-8÷16	3/8" 1/2"
	16	1,6	0.065	15,7	0.620	F/790-8		
	18	1,2	0.049	16,6	0.652	F/790-9		
	20	0,9	0.035	17,3	0.680	F/790-10		
	22	0,7	0.028	17,6	0.694	F/790-11		
7/8" (22,2)	14	2,1	0.083	18,0	0.709	F/790-12	BIT-F790-8÷16	1/2" 5/8"
	16	1,6	0.065	18,9	0.745	F/790-13		
	18	1,2	0.049	19,7	0.777	F/790-14		
	20	0,9	0.035	20,4	0.805	F/790-15		
	22	0,7	0.028	20,8	0.819	F/790-16		
1" (25,4)	12	2,8	0.109	19,9	0.782	F/790-17	BIT-F790-17÷22	5/8" 3/4"
	14	2,1	0.083	21,2	0.834	F/790-18		
	16	1,6	0.065	22,0	0.870	F/790-19		
	18	1,2	0.049	22,9	0.902	F/790-20		
	20	0,9	0.035	23,6	0.930	F/790-21		
	22	0,7	0.028	24,0	0.944	F/790-22		
1.1/4" (31,8)	12	2,8	0.109	26,2	1.032	F/790-23	BIT-F790-23÷32	3/4"
	14	2,1	0.083	27,5	1.084	F/790-24		
	16	1,6	0.065	28,4	1.120	F/790-25		
	18	1,2	0.049	29,3	1.152	F/790-26		
	20	0,9	0.035	30,0	1.180	F/790-27		
1.1/2" (38,1)	12	2,8	0.109	32,6	1.282	F/790-28	BIT-F790-23÷32	1"
	14	2,1	0.083	33,9	1.334	F/790-29		
	16	1,6	0.065	34,8	1.370	F/790-30		
	18	1,2	0.049	35,6	1.402	F/790-31		
	20	0,9	0.035	36,3	1.430	F/790-32		



F/800

Manual extractor

Recommended for small maintenance jobs, the **F/800** hand extractor allows easy removal of stubs and tubes.



d_e mm	sp B.W.G.	d_i mm	d_{im} "	TPMM Mandrel Cod.	TPCM Collar Cod.	F/800 Manual extractor Cod.	"	
3/8" (9,5)	17 ÷ 19	6,5 ÷ 7,5	0.256 ÷ 0.295	TPMM-7	1/2"	TPCM-11	F/800-1	7/8"
	20 ÷ 24	7,5 ÷ 8,5	0.295 ÷ 0.335	TPMM-8				
1/2" (12,7)	14 - 16	8,5 ÷ 9,5	0.335 ÷ 0.374	TPMM-9	1/2"	TPCM-14	F/800-1	7/8"
	17 - 18	9,5 ÷ 10,5	0.374 ÷ 0.413	TPMM-10				
	19 ÷ 21	10,5 ÷ 11,5	0.413 ÷ 0.453	TPMM-11				
	24	11,5 ÷ 12,5	0.453 ÷ 0.492	TPMM-12				
5/8" (15,9)	16 - 17	12,5 ÷ 13,5	0.492 ÷ 0.531	TPMM-13	1/2"	TPCM-18	F/800-1	7/8"
	19 ÷ 21	13,5 ÷ 14,5	0.531 ÷ 0.571	TPMM-14				
	23 - 24	14,5 ÷ 15,5	0.571 ÷ 0.610	TPMM-15				
3/4" (19,0)	11	12,5 ÷ 13,5	0.492 ÷ 0.531	TPMM-13	1/2"	TPCM-21	F/800-1	7/8"
	12 - 13	13,5 ÷ 14,5	0.531 ÷ 0.571	TPMM-14				
	14 - 15	14,5 ÷ 15,5	0.571 ÷ 0.610	TPMM-15				
	16 - 17	15,5 ÷ 16,5	0.610 ÷ 0.650	TPMM-16				
	18 ÷ 20	16,5 ÷ 17,5	0.650 ÷ 0.689	TPMM-17				
	21 ÷ 24	17,5 ÷ 18,5	0.689 ÷ 0.728	TPMM-18				
7/8" (22,2)	14	17,5 ÷ 18,5	0.689 ÷ 0.728	TPMM-18	3/4"	TPCM-25	F/800-2	1.1/4"
	16 - 17	18,5 ÷ 19,5	0.728 ÷ 0.768	TPMM-19				
	18 - 19	19,5 ÷ 20,5	0.768 ÷ 0.807	TPMM-20				
1" (25,4)	10 - 11	18,5 ÷ 19,5	0.728 ÷ 0.768	TPMM-19	3/4"	TPCM-28	F/800-2	1.1/4"
	12	19,5 ÷ 20,5	0.768 ÷ 0.807	TPMM-20				
	13 - 14	20,5 ÷ 21,5	0.807 ÷ 0.846	TPMM-21				
	15 - 16	21,5 ÷ 22,5	0.846 ÷ 0.886	TPMM-22				
	18	22,5 ÷ 23,5	0.886 ÷ 0.925	TPMM-23				
	19 - 20	23,5 ÷ 24,5	0.925 ÷ 0.965	TPMM-24				
1.1/4" (31,8)	10	25,3 ÷ 25,5	0.995 ÷ 1.004	TPMM-25	1"	TPCM-34	F/800-3	1.3/4"
	11 - 12	25,5 ÷ 26,5	1.004 ÷ 1.043	TPMM-26				
	13	26,5 ÷ 27,5	1.043 ÷ 1.083	TPMM-27				
	14 - 15	27,5 ÷ 28,5	1.083 ÷ 1.122	TPMM-28				
	16 ÷ 18	28,5 ÷ 29,5	1.122 ÷ 1.161	TPMM-29				
	19 ÷ 22	29,5 ÷ 30,5	1.161 ÷ 1.201	TPMM-30				
	23 - 24	30,5 ÷ 31,5	1.201 ÷ 1.240	TPMM-31				
1.1/2" (38,1)	10 - 11	31,5 ÷ 32,5	1.240 ÷ 1.280	TPMM-32	1"	TPCM-41	F/800-3	1.3/4"
	12 - 13	32,5 ÷ 33,5	1.280 ÷ 1.319	TPMM-33				
	14	33,5 ÷ 34,5	1.319 ÷ 1.358	TPMM-34				
	15 ÷ 17	34,5 ÷ 35,5	1.358 ÷ 1.398	TPMM-35				
	18 ÷ 20	35,5 ÷ 36,5	1.398 ÷ 1.437	TPMM-36				
	21 ÷ 24	36,5 ÷ 37,5	1.437 ÷ 1.476	TPMM-37				
2" (50,8)	10	43,5 ÷ 44,5	1.713 ÷ 1.752	TPMM-44	1.1/4"	TPCM-56	F/800-4	2.1/4"
	11 - 12	44,5 ÷ 45,5	1.752 ÷ 1.791	TPMM-45				
	13	45,5 ÷ 46,5	1.791 ÷ 1.831	TPMM-46				
	14 - 15	46,5 ÷ 47,5	1.831 ÷ 1.870	TPMM-47				
	16 ÷ 18	47,5 ÷ 48,5	1.870 ÷ 1.909	TPM-48				
	19 ÷ 22	48,5 ÷ 49,5	1.909 ÷ 1.949	TPM-49				